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1001

QUESTIONS AND ANSWERS

ON THE

THEORY AND PRACTICE OF TEACHING.

BY

Benjamin Adams

B. A. HATHAWAY,

Author of "1001 Questions and Answers on U. S. History," "1001 Questions and Answers on Geography," "1001 Questions and Answers on Grammar," "1001 Questions and Answers on Arithmetic."

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PREFATORY NOTE.

The following work is believed to give information on a larger number and greater variety of topics relating to the Theory and Practice of Teaching than any book on that subject yet published in this country. With so great a number of questions as are given, the answers are, for the most part, necessarily brief, but this, it is thought, will prove an advantage rather than a disadvantage, especially to Teachers and Normal School Students, who desire to review this subject hurriedly.

A large number of authors are quoted, and their names will be found appended to answers scattered through the volume. This fact will attest the care with which the compiler has explored the best treatises on the Theory and Principles of Education.

Many of these quoted answers are from the most distinguished Educationists, and are happy expressions of great and suggestive truths in the Science of Education, which the Student will be glad to have presented in the exact language, and in connection with the names of their authors. Other quoted answers give the views of men whose opinions are entitled to respect on disputed points. It has been the aim of the author of this work, when the language of another is used, to give the proper credit in all cases where the name of the writer is known.

This is the fifth book of the series. Others will be out in the near future.

B. A. H.

JULY, 1886.

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INTRODUCTORY.

1. *What is included in the Theory and Practice of Teaching?*

The theory and principles of education, the science and art of instruction and school management.

2. *What are some of the titles of works which treat of this subject?*

"The Theory and Practice of Teaching," "Education as a Science," "School Management," "Normal Methods," "School Economy," "The Science and Art of Teaching," "Pedagogics as a System," etc.

3. *What is the etymology of the word "Teach"?*

It came from an Anglo-Saxon word meaning "to show," and it is remarkable that both the Greek and Latin verbs meaning "to teach" come from a Sanskrit root, also meaning "to show."

4. *What important thought is suggested by this etymology?*

The true teacher is to show, lead or guide the pupil in the work of education, not to do that work for the pupil.

5. *How may Teaching be defined?*

Teaching is guiding a pupil in those exercises which, performed by himself, will best develop his powers.

6. *What is meant by "theory" in the expression, Theory and Practice of Teaching?*

The word theory is often used to denote mere speculation, and is thus opposed to practice, but here it means the body of principles embracing the science and art of teaching.

7. *In what does the Art of Teaching* consist?

In the skillful application of rules and methods deduced from *the theory* of teaching, and from observation and experience

8. *What was Pestalozzi's maxim concerning the three-fold nature of education?*

"Education has to deal with the *heart*, the *head* and the *hand*." To be complete, therefore, it must be *moral*, *intellectual* and *manual*.

9. *What is meant by the "New Education"?*

It cannot be accurately defined in a few words. It embraces the results of the best thought of modern educators. It means new methods rather than new studies. It aims to find nature's method; it would teach things before names; it would direct and not repress the child's natural activity, and it recognizes the importance of *doing* in learning.

10. *Name some of the subjects of a course of study for the professional training of teachers.*

The Science of the Mind applied to teaching, Methods of Instruction, History and Philosophy of Education, the True Order of Studies, School Discipline, School Hygiene, and a thorough review and drill in all the rudimentary branches.

11. *Name some standard works on the Science and Art of Education.*

Joseph Payne's "Lectures on the Science and Art of Education," Alexander Bain's "Education as a Science," A. R. Craig's "The Philosophy of Training," D. P. Page's "Theory and Practice of Teaching," Herbert Spencer's "Education; Mental, Moral and Physical," etc.

12. *Name some eminent educationists of different nations.*

Horace Mann (American), Joseph Payne (English), Joseph Jacotot (French), Pestalozzi (Swiss), Diesterweg (German).

13. *For what purpose should a teacher study the methods of educators?*

With a view of obtaining hints and helps rather than of following them implicitly. Every good teacher's methods must be his own, but he should constantly aim to improve upon them.

14. *What is meant by a method in education?*

It means more than a mere way or plan,—an orderly, regular course, a systematic process aiming at definite ends, and controlled by fixed principles.

15. *What should the course of study in the common school embrace?*

First of all, such branches as the common people in everyday business need.

16. *State some of the necessary requirements in a successful teacher.*

Executive power, will power, a thorough knowledge of the branches taught, and the faculty of imparting instruction —aiding in developing the intellectual susceptibility of the child or pupil.

17. *What kinds of knowledge should a successful teacher have?*

He should not only thoroughly understand the subjects to be taught, but he should also have a broad and comprehensive knowledge of the general objects of education, and the means by which these are to be accomplished. That is, proper professional preparation includes a thorough study of the branches to be taught, the faculties of the mind to be developed, and methods of teaching.

18. *Why should the teacher thoroughly review every topic before teaching it?*

The teacher's knowledge of the subject he teaches must be systematic, fresh, ready at hand. In the presence of his class, he has no opportunity to recall the half-forgotten results of past study. Every power and energy of his mind are required to search through the minds of his pupils, and to test the results of their study.

19. *From what various sources may the teacher obtain information and hints on Theory and Practice?*

The various treatises on the subject, and manuals of instruction, the suggestion to teachers in the elementary textbooks, the circulars of information issued by the National Bureau of Education, the school reports of State and city superintendents of instruction, the proceedings of teachers' institutes and associations, and visits to well-managed schools.

20. *Name some kinds of Literature which the teacher should rehd.*

(1) The news of the day. (2) General literature. (3) Professional literature as found in school journals; biographies of eminent educators and their writings on education. (4) School reports and statistics, which can be obtained for

the asking. (5) Reports of penal, reformatory and benevolent public institutions.

21. *What are some of the benefits of teaching school to the teacher*

"I advise every young person to keep school. I acquired more knowledge of human nature while I kept school than while I was at the bar, than while in the world of politics or at the courts of Europe. It is the best method of acquiring patience, self-command, and a knowledge of character."—*President John Adams.*

Theory of Education.

1. *Give a definition of Education.*

"Education, as a whole, consists of development and training, and may, therefore, be defined as the cultivation of all the native powers of the child, by exercising them in accordance with the laws of his being, with a view to development and training."—*Prof. Joseph Payne.*

2. *What is the etymology of Education?*

It comes from the Latin verb *educo*, *educare*, to lead forth.

3. *What are some other meanings of the Latin verb educo?*

To foster; to maintain; to feed; to cherish; to teach.

4. *In its largest sense, what may Education comprehend?*

Every preparation that is made in our youth for the sequel of our lives.

5. *What is the fundamental idea in Education?*

Development with trainng, growth with culture.

6. *What is the great object of Education?*

Not so much the acquisition of knowledge as the development of power.

7. *What is the best Education?*

That which best prepares for life rather than that which makes the best scholars. The education which makes the best scholars may, however, best prepare for life.

8. *What did Locke call the chief business of Education?*

"The business of education is not to perfect a learner in all or any of the sciences, but to give his mind that freedom, th disposition and those habits that may enable him to obtain any part of knowledge he may apply himself to, or stand in need of in the future course of his life."—*John Locke.*

9. *What can be said of interest and delight in learning?*

"Experience is daily showing with greater clearness that there is always a method to be found productive of interest—even of delight; and it ever turns out that this is the method proved by all other tests to be the right one."—*Herbert Spencer.*

10. *What studies are best for schools?*

Those which both develop power and teach truths useful in practical life.

11. *Why is Education difficult to define?*

Because of its comprehensiveness; the more comprehensive the thought the more difficult the definition.

12. *In the definition of Education, the development of man's powers, what limitation on powers do some writers make?*

They define education as the development of man's *rational* powers, maintaining that brutal or evil powers should not be developed.

13. *What is the true educational spirit?*

That of inquiry and investigation, not of dogmatism and intolerance of difference of opinion.

14. *What is the test of the correctness of a theory of education?*

That it is found correct when practically applied.

15. *Which is the older, the Art or the Science of Education?*

The art.

16. *Why is Education older as an Art than as a Science?*

Because men had learned many important truths concerning the art of teaching by experience, without knowing the philosophy on which the truths were based.

17. *Is there a Science of Education?*

There is, and upon it the deepest minds have thought, and the best writers have written.

18. *Give two reasons why the teacher should study the Science of Education.*

Because he should understand the science on which his own profession is based, and because it is a beautiful and interesting study, as instructive as any other.

19. *What is Science?*

It is knowledge reduced to principles, classified and systemized.

20. *What is said by those who maintain that there is no Science of Education?*

That our knowledge on education is subject to perpetual change, and that rules of teaching are not of universal application, each pupil requiring a different method of instruction.

21. *What can be said in answer to this objection?*

That enough of important and general principles underlying education have been established to constitute a science.

22. *Is it true that a different method of Education should be sought for every individual mind?*

No; while individual minds differ, yet their leading characteristics are the same, and there are certain general laws of mental development which apply to all.

23. *Can methods of instruction be reduced to science?*

Yes.

24. *Why should those who do not intend to become teachers study the Science of Education?*

Because it is of use to all who share in the responsibilities of the family, and because of its dignity and importance to every thoughtful mind.

25. *Which is better, School Education, or Private Tutorage with one pupil to one teacher?*

School education.

26. *Why is School Instruction superior to Private Tutorage?*

Good education trains character, and character is developed best in contact with others. It is important that the child should early associate and compete with those of its own age.

27. *Name some things a child learns by associating with his equals.*

To defend his own rights, and to respect the rights of others.

28. *In what sense is all Education self-education?*

Education essentially consists in the action and exercise of the learner's faculties, which are performed by himself alone. "It is what he does for himself, not what is done for him, that educates him."

29. *What is the part of the teacher in the work of Education?*

To stimulate and direct the learner, not to do for him the work which educates.

30. *How does the development of the infant's mind begin?*

By impressions received through the sensory organs.

31. *What are the impressions received through the senses called?*

Sensations.

32. *What are the channels of communication between Material Objects and the Inherent Capabilities of the child?*

The senses.

33. *How does all knowledge begin?*

In sensations.

34. *In what way is Sensation connected with Mental Operation?*

Only by furnishing the material upon which the first mental operations are performed.

35. *What is the distinction between Sensation and Perception?*

Sensation is the effect produced on the bodily organ by the external object; perception is the act of the mind in becoming cognizant of the sensation as proceeding from some cause external to itself.

36. *What are Conceptions?*

They are perceptions registered or pictured in the mind so as to be recalled.

37. *How is the development of the mind carried on?*

It begins with the reception of sensations, and is carried on by retaining and grouping these sensations and the formation of conceptions or ideas.

38. *What is the order of the development of the child's powers?*

Sensation and perception before conception; conception and imagination before reasoning.

39. *What does this indicate as to the order of studies?*

That the child's perceptive faculties should first be educated, and a powerful, logical drill, like many exercises in mental arithmetic, is out of place in classes of very young pupils.

40. *The impressions of which sense are most* vivid and durable?

Sight.

19. *What is Science?*

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0. *The impressions of which sense are most vivid and durable?*

Sight.

41. *Which sense ranks second in the vividness and permanence of its impressions?*

Hearing.

42. *What is the effect of study on the brain?*

The brain, like other organs, is exhausted by continued activity, and needs rest to recuperate its vitality.

43. *What is meant by Brain Exhaustion?*

The tissues of the brain are worn away by work, and become dead matter, which must be cast off, and replaced by new material.

44. *What is the process of brain recuperation?*

During sleep or play the blood is adding new material to the brain, and carrying off into the currents of circulation the worn out and cast-off tissues.

45. *What class of ideas tax the mind least, and what most?*

Concrete ideas least; the more abstract the ideas become, the more difficult their comprehension, and the greater the nervous strain in their study.

46. *How do common school studies rank in the strain and exhaustion of the brain?*

For most pupils mathematics requires the strongest grasp of mind and the greatest strain on the brain; next are grammatical analysis and parsing; last are the studies in which memory is chiefly exercised, history, geography and spelling.

47. *What is the effect of study on the circulation of the blood i the brain?*

Its circulation is full and active, and even the face is flush

48. *What is the effect of long-continued brain activity?*

The brain becomes so engorged with blood that its activi is depressed, and its energies flag.

49. *What is the great law of activity and rest for the devel ment of the mind?*

A period of repose must always succeed one of activit study brings weariness, and rest is as essential to healt growth as exercise.

50. *What effect has age on the exhaustion of the brain through study?*

The younger a pupil is, the sooner his mind grows tired. For young children, lessons should not exceed ten minutes.

51. *What are some of the requisites of a good teacher?*

A knowledge of the studies to be taught, a knowledge of the methods of teaching based on a fair idea of the laws of mental development, an aptitude in the work of instruction, and tact in the discipline and management of the school.

52. *Why should the Teacher be a Student?*

So that he may sympathize with the pupil in his struggle after knowledge, and keep his own mind receptive of truth.

53. *What is the great distinction between the trained and untrained mind with reference to the power of attention?*

The trained intellect has the power of voluntarily fixing the mind upon a given subject for a continuous period in a far greater degree than the untrained mind.

54. *What should be one of the first efforts of the teacher in the cultivation of attention?*

To develop in the pupil the power of giving up the whole powers of the mind to one thing, but with young children not for a long period of time.

55. *What is the great law of retentiveness of knowledge in the mind?*

The more clearly any fact or truth is comprehended, and the more deeply it interests the mind, the longer it will be retained; memory depends largely on attention.

56. *What are some of the means of imprinting knowledge permanently on the memory?*

The first impression should be striking and lively; the whole attention should be concentrated; there should be frequent repetition.

57. *How does Payne describe the art of remembering?*

"Memory is the result of attention. The art of memory is the art of paying attention."

58. *Is Memory a distinct faculty of the mind?*

No; it is an assemblage of different kinds of memories that we possess, one differing in power from another.

59. *How can the teacher encourage self-development in the pupil?*

Inciting his mind to self-activity by his interest in the new, *the wonderful* and the beautiful.

60. *What does Sir William Hamilton denominate the primary principle in education?*

"The determination of the pupil to self-activity—the doin of nothing for him he is able to do for himself."

61. *How should the teacher regard Curiosity?*

As the appetite for knowledge. "Stimulate, not satisfy curiosity."

62. *What should precede every explanation by the teacher?*

The curiosity of the pupil, or the desire to know.

63. *What stimulus has nature furnished every learner to develop his own faculties?*

"Nature has made the healthful exercise of our faculties both of mind and body pleasurable."—*Herbert Spencer.*

64. *What should be the chief stimulus in Intellectual Education?*

"The pleasure felt by the learner in the simple exercise of his own powers, the pleasure of developing and growing by means of acts of observing, experimenting, discovering, inventing, performed by himself."—*Payne.*

65. *Give some proper incentives to study.*

A desire to know; the pleasure of learning; a desire to be useful and intelligent; and a desire to please teacher, parents and friends.

66. *Why should the teacher make it his daily duty to thoroughly prepare every lesson?*

To find out the surest, shortest and most attractive way of making his instruction reach the minds and hearts of his pupils.

67. *What is the Inductive Method?*

It is a method based on the process of deriving general principles from individual facts; it proceeds from particulars to generals.

68. *How are rules, definitions and principles taught by the Inductive Method?*

A sufficient number of facts are first taught to enable the pupil to discover the principle, rule or definition for himself.

69. *What is an Induction?*

A conclusion drawn from a number of particular facts.

70. *What other name is there for the* Inductive Method?

Developing method.

71. *How can the Multiplication Table be taught experimentally?*

By teaching that seven 7's added together make 49, and that 7 taken seven times from 49 leaves no remainder; etc. Pupils may be taught to make a multiplication table.

72. *In the Developing Method which come first, examples or rules?*

Examples; and the rules are to be discovered by the pupil, and then expressed in his own language.

73. *What is Empirical knowledge?*

Knowledge derived only from experience, without an acquaintance with the theory or principles underlying the facts.

74. *To whom was the word Empirics first applied?*

To physicians who practiced from experience only, without science or theory.

75. *Why will not a high-pressure system of instruction give the pupil a good education in one or two years?*

It will where the learner has some knowledge of the branches beforehand, but where the branches are entirely new, the average growth of the young mind is not rapid enough to grapple all the truths in so short a time.

76. *What are the objects of Reviews?*

To test results of study; to fix in the mind important facts.

77. *How often should thorough examinations be made?*

Once in three months; partial reviews, however, should be made frequent.

78. *Why should not thorough written examinations be frequent?*

They take up too much time, and are too severe a trial on both teacher and pupil.

79. *What are the benefits of good instruction in vocal music in common schools?*

Vocal culture, the training of the emotional nature, the cultivation of the sense of the beautiful, and it is a help in discipline.

80. *Which of the common school studies best trains attention?*

Arithmetic.

81. *What powers of the mind are especially called into exerci by Arithmetic?*

Attention, the power of forming clear and exact ideas, a reasoning.

82. *What mental faculties are chiefly exercised in Geograph*

Perception, Conception, Imagination and Memory.

83. *What powers are especially cultivated in Grammar?*

Close and logical thinking.

84. *In what way may Geography exercise the Concepti Faculty?*

The mind should be trained to recall images of mountain lakes, rivers, etc.

85. *In what way may Geography cultivate Imagination?*

The pupil should be able to form mental pictures of region far different from that in which he lives.

86. *Give William T. Harris's classification of the subjects of elementary instruction.*

I. Reading and writing—the mastery of letters.
II. Arithmetic—the mastery of numbers.
III. Geography—the mastery over place.
IV. Grammar—the mastery over the word.
V. History—the mastery over time.

87. *What is Object Teaching?*

It is instruction by objects for the systematic cultivatio the observing powers.

88. *What are the purposes of Object Teaching?*

The cultivation of the senses; training the powers of ception so that the mind may be stored with clear distinct ideas; language lessons in which words are ap priately and correctly associated with ideas.

89. *What is Psychology?*

The science of the mind; mental philosophy.

90. *What are the divisions of the Intellect?*

The intellect embraces several distinct faculties—percept , memory, imagination, understanding and intuition, or the reason. The understanding has its forms of abstraction, conception, judgment and reasoning.

91. *What is meant by a Mental Faculty?*

A power of the mind.

2. *Name an intellectual faculty which is early developed, and among the first to decay.*

Perception, which is keen in the child, and dull in the aged man.

3. *What three great divisions of the powers of the mind?*

The Intellectual Faculties, the Affections and the Will.

4. *Name one of the intellectual faculties which is among the last developed.*

Reasoning..

5. *What great principle concerning growth and progress in education did Fellenberg announce?*

"Gradual progress is the only sure progress."

6. *Explain this principle.*

Education is a growth; successive steps in education should only be taken as the mind is prepared for them, and the young mind should not be filled with facts, rules or principles without allowing sufficient time for them to be arranged, compared with previous acquisitions, and fully assimilated. This, of course, has no reference to reviews, which cannot be too highly recommended.

7. *What is "cramming?"*

It is a kind of mental stuffing, a pouring into the mind a mass of new facts, rules and definitions never before learned.

8. *What distinction can you make between Instruction and Training?*

A pupil is instructed when knowledge is communicated to him which he comprehends; he is trained when he is taught to do something, and do it well, and with facility.

9. *Give an illustration of this distinction.*

Pupils are instructed in the mariner's measure; seamen are trained in it to measure distances at sea with facility and accuracy.

00. *What connection should there be between Training and Instruction?*

They should go together in education.

01. *What is Culture?*

A term denoting the development and improvement of *human* character by means of education, training, and *especially* by the refining influences of literature and art.

102. *Give the active and the passive sense of the word culture.*

In the active sense it implies the use of all necessary means and agencies to cultivate the higher faculties of man; in the passive sense it implies the result of their operation.

103. *What distinction between Education and Culture?*

Education means development; culture means both development and refinement. School education ought to result in culture, but unfortunately it does not always do so.

104. *What is the effect of culture upon the mental powers?*

They are not only developed and strengthened, but there is superadded a nice and careful discrimination as to their proper or improper exercise, with a due regard to the circumstances which require their employment.

105. *What is characteristic of a man of culture in the use of language?*

A man of culture expresses his thoughts in suitable and elegant language. But this is not all; he knows how to adapt his language to the persons, the places and the circumstances which call for this expression; nor does he give utterance to his thoughts except when it is proper to do so.

106. *What two kinds of power does culture imply?*

Power of exercise, and power of restraint. Culture does not imply weakness, but it is opposed to savage wildness.

107. *What is the distinction between general and special culture?*

General culture implies that everything constituting the character of the individual has been brought under a high degree of improvement; special culture has reference to a particular direction given to the development of the faculties, as the culture of the poet, the teacher, the clergyman, etc.

108. *Is the object of higher education general or special culture?*

General culture, as a basis for that special or technical culture which is needed in a particular vocation.

109. *What is the best means of promoting a wide general culture?*

Good literature. Every good book that a pupil or teacher reads and learns to love is a moral and educational force, and a means of culture.

110. *What is meant by Secondary Instruction?*

Instruction above that of the common school, such as is afforded by high schools, academies, etc.

111. *What is meant by Superior Instruction?*

A term used to denote instruction of the highest grade, or that given in colleges and universities.

112. *What is Herbert Spencer's declaration concerning Rule-Teaching?*

"Along with rote-teaching is declining also the nearly-allied teaching by rules. The particulars first, and then the generalization, is the new method."—*Herbert Spencer.*

113. *Give a test of the excellence of a method of instruction.*

"As a final test by which to judge any plan of culture, should come the question—Does it create a pleasurable excitement in the pupils?"—*Ib.*

The Art of Instruction.

1. *What is Pedagogy or Pedagogics?*

The science and art of giving instruction, particularly in school.

2. *What is the etymology of these terms?*

They come from two Greek words signifying to lead the boys.

3. *Where has the term Pedagogics been most used?*

In Germany more than England or the United States.

4. *Which is the more extensive term, Education or Instruction?*

Education.

5. *What is the distinction between Education and Instruction?*

Instruction is directed to the intellect or understanding, while education comprehends the guidance and development of the whole human being.

6. *What are the general divisions of education with reference to the class of faculties to be developed?*

(1) Physical, (2) Intellectual, (3) Moral, (4) Esthetic, (5) *Religious.*

7. *What is Physical Education?*

The education of the bodily powers.

8. *What is Intellectual Education?*

That of the mind or intellect.

9. *What is Moral Education?*

That of the propensities, sentiments, will and conscience.

10. *What is Religious Education?*

That of the religious sentiments or spiritual instincts.

11. *What is Esthetic Education?*

That of the taste, musical, artistic or literary, comprehending the sphere of the imagination.

12. *What can the common-school teacher do to educate the taste of children?*

He can exercise care in maintaining a neat and orderly arrangement of the school-house, furniture and grounds, and lead his pupils to see the beauties of poetic and literary selections.

13. *What is the distinction between an Educator and an Educationist?*

An educator is one engaged in the practical work of education; an educationist is one acquainted with the theory and principles of education, whether a practical instructor or not.

14. *What is the difference between Instructing and Telling?*

True instruction is educative, arrests the attention, awaken the interest, and imprints truths and principles on th mind; mere lecturing or telling generally fails of this.

15. *What is one of the most common faults of young instructors*

That of talking too much, and telling too many things.

16. *What kind of instruction imprints truths and principle most firmly in the mind of the pupil?*

That which leads him to discover them for himself.

17. *Explain the maxim, "The primary principle of education is self-activity."*

It means the pupil's motives to action should come from *within* rather than from without; a love of knowledge and *study* should be developed; self-reliance should be cultivated.

18. *What is training in education?*

It is that part of education which imparts skill or facility by exercise or practice.

19. *What is the great law of the formation of habits?*

They are formed by repetition or exercise.

20. *What allowance should the teacher make for bad habits of pupils?*

He should remember that bad habits have been slowly formed, and cannot be uprooted at once, and by violence.

21. *What difference is there between the educated and the uneducated with reference to control over mental habits?*

Education brings the power of freeing ourselves from one habit, and adopting another.

22. *What is drill in education?*

It is a routine of exercises required for the ready performance of certain processes, or for impressing on the memory associations of facts and words.

23. *What is Rote-Teaching?*

Instruction by means of constant repetition, particularly of certain forms of speech, with little regard to their meaning.

24. *What distinction in the common use of the terms, Drill and Rote-Teaching?*

The latter is generally used in a bad sense; the former is not.

25. *Why is Rote-Teaching condemned?*

Because it fails to address the understanding, and is merely mechanical.

6. *Is all Rote-Teaching to be condemned?*

No; it is sometimes useful to impress on the memory rudimentary principles which cannot well be learned in any other way.

27. *What is most commonly taught by rote?*

The multiplication table and other arithmetical tables, grammatical declensions, conjugations, etc.

28. *What is Concert-Teaching?*

It is instruction by memorizing what is to be learned by simultaneous repetition.

29. *Do Educationists approve of Concert-Teaching?*

It is a kind of rote-teaching, and is regarded as objectionable for many reasons. It may, however, often be used to great advantage, especially with young pupils.

30. *What are the three principal methods of instruction?*

(1) The questioning method; (2) lecturing; (3) topical recitation.

31. *What special care should be observed in putting questions?*

(1) Never ask leading questions; (2) put the question to the class before calling for an answer from an individual, so as to gain the attention of all; (3) do not ask several questions to get a single answer.

32. *What advantages have written answers over oral?*

They bring the pupil under rigid examination in penmanship, orthography, use of capitals, punctuation and modes of expression. Written exercises should be frequent.

33. *What are Leading Questions?*

Those which suggest the answers, and are generally, but not always, answered by yes or no.

34. *Is lecturing ever a proper method of instruction in the common school?*

Lecturing has its uses and abuses; oral lessons or conversational lectures which impart instruction and give variety have their proper place, but they should never be substituted for regular recitations.

35. *What was the Socratic method of instruction?*

That employed by Socrates to bring conviction to the learner's mind by obtaining, in answer to the questions asked, a series of admissions leading finally to his assent to the truth proposed.

36. *Can the teacher properly employ this method?*

Rarely in the school room.

37. *What is the Topical Method of reciting?*

It requires the pupil to give a connected statement of his knowledge of the topic assigned him.

38. *What is one of the chief advantages of this method?*

It cultivates the power of expression.

39. *What are some of the most important* objects of recitation?

Examination, explanation, drill, correct expression.

40. *What should be the length of recitations?*

They should not be protracted beyond the power of the pupils to give close and voluntary attention to the subject. Very young children have not the capacity of attention longer than a few minutes. Five-minute recitations for the youngest children, with the time increasing with the age to thirty minutes, are better than longer periods attended with want of animation and weariness.

41. *What should be the position of the class during recitation?*

The class should usually be seated, and the pupil reciting should stand.

42. *Why should the pupil stand while reciting?*

That he may be brought out prominently, and acquire the habit of thinking and speaking in that exposed position. and thus acquire confidence and self-control.

43. *Should the pupil recite in his own language, or in the words of the text-book?*

Generally in his own language.

44. *What reasons are there for the pupil reciting in his own language?*

It affords evidence that he understands the subject, and has not merely memorized the words of the author, it makes the pupil's mind a store-house of thoughts instead of mere words, and cultivates his own power of expression.

45. *Should any portion of the lesson be given in the language of the text-book?*

"Captions, definitions, tables and fixed rules should be accurately recited in the words of the author, but every other kind of lesson should be expressed in the pupil's own language."—*Orcutt.*

46. *What difference of opinion is there on the matter of reciting in the language of the book?*

Many good teachers hold that even rules and definitions should not be committed to memory, or at least that the pupil should not be required to commit them. Others hold that the exact language of the author is important.

47. *Why should primary instruction be more largely oral than higher instruction?*

The reason is plain that very young pupils cannot investigate books like older pupils, and the teacher must not only give more instruction (information), but must explain the books to his pupils. The teacher should make his pupils do the talking as far as possible.

48. *How may the Art of Teaching be defined?*

Teaching is the art of so presenting objects and subjects to the mind of the learner as to arouse that activity which results in knowledge, discipline and culture.

49. *What is the effect of a multiplicity of facts or details presented at one recitation?*

It distracts the attention and confuses the memory.

50. *What useful maxim in opposition to this error?*

"One thing at a time."

51. *How may this maxim be abused?*

In applying it to mean that pupils should finish one study before beginning another, or that all the alphabet should be taught before reading, and reading before writing, etc.

52. *Give some illustrations of the maxim "one thing at a time."*

One difficulty at a time is enough for the child. One illustration is often better than many. One truth fixed in the mind at a single recitation may be remembered, when two or more would be forgotten. The first map for the child should contain but a bare outline.

53. *What effect has doing on learning?*

Children learn to do many things only by doing them—to walk by walking, to talk by talking, to swim by swimming, and they should learn to write English by writing, and to know the meaning of words by using them.

54. *What is the relation of doing to clearness and precision of knowledge?*

Skill comes only from doing, and must go before real and full knowledge.

55. *Name some of the objects of class-room illustrations.*

To render the obscure plain, to awaken interest, to give entertainment, relieve monotony, and to fix in the memory.

56. *Name a characteristic of a good illustration.*

It throws light on the topic in hand, and does not draw *attention to* itself.

57. *Why are frequent reviews necessary to ready and accurate knowledge of the subjects taught?*

Because many things, when studied but once, are not firmly fixed in the mind, and repetition will make many points clearer, and form a more lasting impression on the mind.

58. *What are the purposes of regular examinations?*

To determine the pupil's fitness to be advanced to a higher grade, or to pursue advanced studies.

59. *State the difference between teaching a rule inductively and deductively.*

By the inductive method we solve each case by analysis, and derive the *rules* by inference or induction. By the deductive method we first establish a few general principles, and then derive rules of operation from these principles.

60. *Name three methods of calling on pupils in the class to recite.*

(1) Consecutively. (2) Promiscuously. (3) Simultaneously or in concert.

61. *Name the advantages of the Consecutive Method.*

It is rapid, no time being lost in designating the pupil to recite; it is easy for the teacher; it gives all the pupils an opportunity to recite.

62. *Name the disadvantages of this method.*

It fails to necessitate the close attention of the whole class; it often permits a partial preparation of the lesson; it is not the most thorough testing of the whole class.

63. *Name the advantages of the Promiscuous Method of reciting.*

It secures the attention of the whole class; it necessitates the preparation of the whole lesson by the entire class; the recitation is made a mental drill for the entire class.

64. *Name the disadvantages of this method.*

It is less rapid and less easy for the teacher than the consecutive method; some pupils may be omitted in recitation.

65. *How may the advantages of both methods be in part secured?*

If either method is used, by making frequent resorts to the other.

66. *What is to be said of the Concert Method of recitation?*

It is not reliable as a test, but may sometimes be used with good results.

67. *Name some things which should be required in class work.*

"Require and secure good conduct in class-room; quiet and orderly movements in passing to and from class-room; erect position of pupils; promptness and accuracy; neatness of blackboard work."—*Prof. J. A. Cooper.*

68. *Name some useful directions to teachers for securing good recitations.*

"Make a careful preparation for each lesson, including both matter and method of recitation; stand before the class; request rather than command. Ask definite questions and give positive directions; show pupils how to study and how to recite. Be energetic, thorough, firm, exact, clear and efficient; strive to secure thorough study, clear recitation, a lively interest, close attention and rapid progress. Use visible illustrations and illustrative objects as much as you can with profit; keep the recitation-room in order."—*Ib.*

69. *Name some things to be guarded against by the teacher in hearing recitations.*

"Guard against much talking, dependence on the text-book, scolding, and fault-finding."—*Ib.*

70. *Should the questions printed in the text-book be used in school?*

The pupil may use these questions and find their answers; the teacher should be well enough acquainted with the subject to frame questions of his own.

71. *What evils result from a slavish use of text-books by the teacher?*

It gives the impression that the book is taught rather than the subject, and fails to stimulate the spirit of inquiry and free investigation.

72. *What advantages result from a proper use of text-books?*

They aid the teacher and pupil, and accustom the pupil to the use of the printed page.

73. *What is meant by Oral Instruction?*

It is instruction without text-books.

74. *What are the purposes of Oral Instruction?*

To awaken attention, to strengthen the observation of things, to give useful information, and to accustom the child to express in his own language what he has learned and retained.

75. ***What subjects are usually taught to young children by oral lessons?***

Music, English Grammar, the simpler elements of Natural Science, Natural History, and Natural Philosophy.

76. ***What good effect results from committing to memory and repeating selections from good authors?***

It improves the mind, the taste and the sensibilities, and may aid in the formation of an animated style of reading.

77. ***Should pupils be encouraged to memorize the best paragraphs in literature, even if they are not understood?***

No; only that which is understood should be committed to memory.

78. ***What kind of selections are best for the younger children to memorize?***

"Such as are calculated to develop their emotional natures—the imagination, love of home and parents, kindness to dumb animals, etc.—and to teach them correct rules of action."—*J. B. Peaslee.*

79. ***What kind for more advanced pupils?***

"Brief extracts, containing grand and ennobling thoughts, calculated to incite to higher aspirations in life, to lead them into pure fields of English literature, and to teach them to love and reverence our great authors."—*Ib.*

80. ***How much time should be devoted to this work?***

At least one hour per week.—*Ib.*

81. ***How much may be regarded as a fair amount of work of this kind?***

Eight lines for each week's work.—*Ib.*

82. ***Why should the extracts be memorized verbatim?***

Because their value in after life will depend much upon the accuracy with which they can be repeated.

83. ***How should the author's name be associated with each selection?***

The full name of the author (when known) should be given at the close of each reading or recitation.

104. *How should Botany be taught to young pupils?*

By oral lessons about plants, their different parts, and how they grow, omitting technical terms.

105. *If a plant is placed in the hands of the pupil, what should be the purpose of the questions asked?*

To lead him to observe what is not readily seen, and to think about the uses of the different parts.

106. *What is the effect of thinking on observing?*

"It is at first thought strange—although it is true—that powers of observation are to be strengthened only by teaching the pupil to *think* upon what he sees."—*W. T. Harris.*

107. *What distinction may be made between the educative effects of Oral and Written exercises?*

In general, oral exercises cultivate promptness, and test the range of the pupil's knowledge; written exercises cultivate the power of continuous thinking, and test the accuracy of his knowledge.

108. *What should be kept constantly in view in questioning?*

The main object of the school-room is to train the pupils to think properly, and express their thoughts properly. By a careful wording of the question, the teacher will not only make the children think, but will give them power to express their thoughts.

109. *Give four main purposes of the Art of Questioning.*

(1) To induce a reproduction of the pupil's knowledge. (2) To stimulate his curiosity and his diligence. (3) To resolve potential knowledge and energy into actual knowledge and power. (4) To keep the teacher informed of the mental state and the mental needs of his pupils.

110. *What are the "Nine Laws" of Pestalozzi?*

(1) Activity is the law of childhood. Accustom the child to do—educate the hand. (2) Cultivate the faculties in their natural order. First form the mind, and then furnish it. (3) Begin with the senses, and never tell a child what he can discover himself. (4) Reduce the subject to its elements. One difficulty at a time is enough for a child. (5) Proceed step by step; be thorough. (6) Let every lesson have a point. (7) Develop the idea, then give the term. (8) Proceed from the known to the un-

known. (9) Synthesis, then analysis; not the order of the subject, but the order of nature.

111. *What celebrated terms used by David P. Page to describe two bad methods of teaching?*

"The Pouring-in Process" and "The Drawing-out Process."

112. *What did Page mean by the "pouring-in process"?*

"Lecturing to a class of children upon every subject which occurs to the teacher, it being his chief aim to bring before them as many facts in a limited time as possible."

113. *What is the great objection to this method?*

It makes the mind of the pupil a passive recipient, and does not call into exercise his own powers. It is altogether unphilosophical.

114. *What is the "drawing-out process" as described by Page?*

"This consists in asking what lawyers call leading questions. It is practiced usually whenever the teacher wants to help along the pupil."

115. *What is the great objection to this method?*

The teacher does the thinking for the pupil; it "has a direct tendency to make the scholar miserably superficial. For why should he study, if he knows from constant experience that the teacher by a leading question will relieve him from all embarrassment?"

116. *What did Page regard as "the more excellent way"?*

"That the pupil should be taught mainly to depend on his own resources."

117. *Why should not teachers make a practice of answering hard questions and solving difficult problems for their pupils?*

Because the pupils should be led to exert their own powers, and to overcome difficulties.

118. *Should pupils be reproved for asking assistance from the teacher?*

No; this is harsh, and may discourage them.

119. *What should be done when pupils ask assistance?*

Neither reprove nor relieve them from labor. Refer them to some principles lost sight of; enlighten them a little; "put them on the scent," and leave them to achieve the victory.

120. *How far should a pupil be assisted in the preparation of his lesson?*

Just so far that he may know how to go about the preparation of it in a proper way. If the lesson is unusually difficult, it is proper for the teacher to point out the difficulties, and suggest their solution, but no more.

121. *What objections have been urged against the old-fashioned Public Examinations?*

That they were merely show-offs for public effect, causing intense excitement and worry among the pupils.

122. *For what purpose have School Exhibitions been usually given?*

For the public display of some of the ornamental accomplishments of the pupils, such as music, declamation, calisthenics, etc.

123. *What is the great objection to the ordinary School Exhibition?*

It perverts the regular order of school exercises into a special preparation for display.

124. *What is meant by a School Exposition?*

It is a method of exhibiting to the public in a systematic manner the progress and attainments of the pupils in their regular school studies.

125. *What are sometimes termed "the soul's gateways," and why?*

The senses; they are so termed because they are the means of communication between the soul or mind and the external world.

126. *In the education of the senses what two qualities should be especially cultivated?*

Quickness in receiving impressions, and strength in taking hold of impressions.

127. *What is a Kindergarten?*

A kind of infant school, founded by Froebel, the instruction of which is intended to precede all other elementary education, and to prepare the child for the use of books by training all its powers, and particularly to train the hands and senses.

128. What means are used in the Kindergarten for the earliest training of the senses?

Playthings, called Gifts.

129. *What is the First Gift?*

Six elastic balls of different colors, with strings attached to them.

130. *What is the Second Gift?*

A ball, cube, and cylinder—all of wood.

131. *What is the Third Gift?*

A two-inch cube of wood divided into eight smaller cubes by being cut in each of its three dimensions.

132. *What is the Fourth Gift?*

A cube of the same size as the third gift, but divided into eight brick-shaped blocks by one horizontal and three vertical cuts.

133. *What is the Fifth Gift?*

A three-inch cube cut into thirty-nine pieces.

134. *What is the Sixth Gift?*

Twenty-seven brick-shaped blocks, some of which are bisected into prisms.

135. *Name some other kinds of apparatus used in Kindergarten instruction.*

Paper for cutting, weaving paper, jointed slats, drawing slates and paper, material for modeling, building blocks, etc.

136. *At what age did Froebel intend the first six gifts to be used?*

They were for infant instruction; the first gift is intended as one of the first playthings of the child; the second gift is intended for the infant at about the age of six months; the third gift at about the age of two years, and all of them are to be placed in the hands of the child before he begins to learn his letters.

137. *What are the principal exercises of the Kindergarten besides the employment of gifts and apparatus?*

Games, plays, marching, singing, light gymnastics, conversational object lessons, etc.

138. *What is the practical result of Kindergarten culture?*

"It has been found that the children who come from the Kindergarten excel the others in ability of self-help, in *maturity* and quickness of sense, perception, and in their *grasping* thought."—*Report of* St. Louis Schools.

139. *How is the teacher to keep the restless little children quiet while hearing others recite?*

Constant but varied employment for the little ones at their seats is absolutely necessary.

140. *What are the prime essentials of such employments?*

That they should be both interesting and profitable.

141. *What has been the chief resource in keeping little children busy?*

The slate and pencil.

142. *Name some of the various devices for keeping little children, who are too young to study, employed at their seats.*

Clay modeling, use of dissected pictures, picture books, letter-cards and word-cards.

143. *In what way have shoe pegs been employed in the primary school?*

The little child is given a number of pegs or wooden toothpicks, and follows its own fancy or the lead of the teacher in laying them in systematical forms. They are only used for very young children.

144. *Which should be taught first, Technical Grammar or Composition?*

Composition, Language Lessons, and Sentence-Making should precede Technical Grammar.

145. *How may a teacher stimulate the youngest pupils?*

By encouraging them in their efforts, and speaking approvingly of their work. The teacher should go among the little ones at their seats, inspect their work, encourage the timid, and provide pleasant employment for them.

146. *What eminent Philosopher decried the study of Mathematics?*

Sir William Hamilton.

147. *What declaration did he make concerning the study of Mathematics?*

"That there is no faculty which is cultivated by the study of mathematics which may not be as well cultivated by the study of some other science."

148. *Have the views of Hamilton been generally accepted on this point?*

No; not only Mathematicians, but Educators generally, maintain that there is no study which disciplines the mind in so many ways as Mathematics.

149. *State some results of Mathematical studies upon the mind of the learner.*

They cultivate a habit of mind which rests satisfied only with clear and definite conceptions, and the power of clothing such conceptions in language unmistakable, and are an admirable logical drill.

150. *What is meant by the Genetic Method?*

It is another name for the Developing Method.

151. *For what different purposes should pupils be taught to use the Dictionary?*

For spelling, pronunciation, definitions, synonyms, etymology and illustrations of the use of words.

152. *Give a common but defective manner of using the dictionary in Orthoepy.*

Many persons learn how to find only the accented syllable when they look for the pronunciation of a word.

153. *What instruction in dictionary pronunciation should be given?*

Pupils should be taught the exact use of all the marks in orthoepy, and to spell by sound the words according to the pronunciation in the dictionary.

154. *Illustrate the critical use of the dictionary by the word "interest."*

The word *interest* as a noun and as a verb is pronounced differently, although in both cases it is accented on the first syllable; the difference being solely in the sound of the vowel in the last syllable.

155. *What is Arbor Day?*

It is a day in several States appointed by the Governor which the people and children of the public schools are requested to devote to the interests of tree planting.

156. *How and where did Arbor Day originate?*

The Governor of Nebraska several years ago appointed a day to be devoted to tree planting, and it is said 12,000,000 trees were planted on that day.

157. *What kind of instruction is appropriate on Arbor Day?*

Pupils should be interested in the history of famous trees, and taught the value, uses and need of forests.

158. *How far should every teacher's methods of instruction be original with himself?*

Every teacher must originate his own plans of conducting lessons so far as to adapt them to the particular needs of his own school; he ought not to servilely follow the methods of any author.

159. *What caution is to be observed in studying New Methods?*

It should be borne in mind that the latest is not necessarily the best method, and that every new method should be subjected to the test of experience and common sense.

160. *Why is it that there are so many who are called "good scholars" at school, of whom we hear nothing in after life?*

Their good scholarship had in it no impulse to go on to greater attainments. Their learning was a mere reception, as a sponge filled with water.

Discipline and Government.

1. *What does School Discipline include?*

All regulations, prohibitions, restraints and stimulants designed to regulate the habits of study and deportment during school life.

2. *What are the objects of School Discipline?*

To prevent or cure school vices and to cultivate school virtues.

3. *Name some school vices.*

Idleness, whispering, disorderly movements, injury to property, rudeness of speech or act.

4. *Name some school virtues.*

Punctuality, promptness, obedience, truthfulness, earnestness, diligence, thoroughness and courtesy.

5. *Are the powers of the School-Master more or less limited now than in former times?*

They are more limited now than formerly.

6. *How are they limited?*

By the laws of the State and by the regulations of School-Boards and Superintendents.

7. *Are many or few rules in the school-room advisable?*

A multiplicity of rules tend to confuse the pupils and to multiply offenses. Rules should be as few as possible.

8. *Is it possible to dispense with formal rules in the school?*

Some good teachers dispense with them.

9. *What are the results of over-government and constant restraint?*

They place the pupil in an atmosphere of tyranny and arbitrary power, and engender a feeling of resistance.

10. *What are the best results of School Government?*

Voluntary obedience and self-control.

11. *Is it possible to have a school too still?*

Page says: "There is such a thing as keeping a school too still—a death-like silence—the stillness of restraint, not of activity."

12. *What are some of the means of preserving quiet without restraint?*

By keeping the pupils busy and interested, and varying the exercises so as to avoid monotony.

13. *In what way may Gymnastics serve to preserve order?*

"They serve as a safety-valve to let off the excess of animal spirits."

14. *In what spirit should a teacher govern?*

In that of kindness united with firmness.

15. *What ends should be kept in view in seating pupils?*

That they may appear uniform; not disturb each other in necessary movements; temptations to play and mischief be removed; and all be easily seen by the teacher.

16. *What three purposes may School Punishment serve?*

(1) Reformatory, (2) Deterrent, (3) Incapacitating.

17. *What is meant by Reformatory Punishment?*

That which has the reformation of the offender in view.

18. *What are Deterrent Punishments?*

Those which serve as a warning or admonition against future offenses.

19. *What are Incapacitating Punishments?*

Those which for a time incapacitate the offender from a repetition of his offense, as by isolating him or depriving him of a privilege he has abused.

20. *May the same punishment serve two or more of these purposes?*

It may.

21. *What punishments are to be preferred?*

Those which leave a permanent good effect both on the offender and the whole school.

22. *What punishments are to be avoided?*

Those which are brutal, cruel, degrading and humiliating.

23. *What is to be said of Corporal Punishment?*

It has the sanction of high authority and time-honored example, but in modern times has fallen much into disrepute and disuse.

24. *What was Dr. Johnson's testimony in favor of the rod?*

"My master whipped me very well; without that I should have done nothing."

25. *How did John Locke characterize the rod?*

"The usual, lazy and short way of chastisement; the most unfit of any to be used in education."

26. *What were Locke's arguments against the rod?*

It accustoms the child to act less from reason than fear of pain, and it abases and breaks the spirit.

27. *Did Locke think Corporal Punishment should ever be applied?*

He says "very rarely to be applied, and that only in great occasions and cases of extremity."

28. *What is the prevailing view of modern Educators on Corporal Punishment?*

They discourage its frequent infliction, but generally recognize its necessity in extreme cases.

29. *What is the tendency of Public opinion on this kind of punishment?*

It is in the direction of its abolition, and is decidedly against frequent and severe castigations.

30. *In what different ways has Corporal Punishment been abolished?*

By law in some States; by regulations of School Boards in some towns and cities, and by the advice of Superintendents in some graded schools.

31. *Is any distinction between the sexes to be observed in the use of the rod?*

Some good and experienced teachers say: Never whip girls.

32. *What is Public opinion on this point?*

It is more strongly against the beating of girls than boys. In many places a teacher who would whip a girl would lose his position.

33. *What caution is to be observed in the punishment of very young children?*

They should never be severely flogged.

34. *What is Corporal Punishment?*

It is the infliction of physical pain as a punishment.

35. *Name some other forms of Corporal Punishment besides the use of the rod.*

Standing on one foot, or in a painful position; kneeling on a sharp edge of wood; holding the arm extended for a great length of time, etc.

36. *Should physical punishment ever be inflicted on the head?*

No; pulling the hair or ears, rapping the head, boxing the ears, or slapping the cheeks, should be avoided.

37. *Give George B. Emerson's argument against the rod.*

"The great objection to Corporal Punishment is the fact that it excites angry passions, not only in the child, but in the master, and more in the latter than the former."

38. *If the teacher finds Corporal Punishment necessary, in what spirit should he regard it?*

As only a necessary evil, and he should regret the necessity, and carefully guard the temper in which he administers it.

39. *Should any instrument of Corporal Punishment be kept in view of the school?*

No.

40. *What is the best advice to teachers on the use of the rod?*

Do not resolve never to use it, but try to avoid it; good order is to be maintained at all hazards.

41. *In what different senses is the word Discipline used?*

(1) As nearly synonymous with training or culture; (2) denoting school government; (3) meaning punishment of offenses.

42. *What effect has work on good order?*

Work both by teacher and pupils is one of the most powerful aids in securing order. Indolence causes idleness, and idleness leads to confusion and insubordination.

43. *Should the teacher compel his pupils to work?*

It is best to secure industry indirectly, by guiding and directing the natural self-activity of the pupils, and by arousing and inspiring them.

44. *Name one of the strongest allies of the teacher in Government and Discipline.*

Public opinion both in and outside the school-room.

45. *What should be the teacher's endeavor with respect to Public opinion?*

To employ it to secure good order, punctuality and good habits.

46. *Why should the teacher endeavor to have Public opinion on his side?*

Because it is impossible for him to long stand up with both pupils and patrons against him.

47. *What is the first step in enlisting Public opinion on the teacher's side?*

Gaining the confidence of pupils and patrons.

48. *What is the distinction between Prizes and Rewards?*

Prizes are rewards gained by contest or competition; rewards are conferred for well-doing, whether gained by competition or not.

49. *To what do offers of Prizes, Rewards and Marks of Merit appeal?*

To emulation.

50. *What is Emulation?*

A desire to excel others.

51. *Is it proper to appeal to Emulation as an incentive in school?*

There is a great difference of opinion on this point.

52. *What do the opponents of Prizes say?*

That emulation is a baser passion, and pupils should work from higher motives.

53. *What do the advocates of Prizes say?*

That emulation is a lively and generous ardor implanted by nature for the good of man.

54. *What are some of the objections to Prizes?*

They often cause ill-feeling among pupils and parents, and induce a few only of a class to apply themselves with eagerness.

55. *What is an argument in favor of Prizes?*

The love of approbation and a desire of distinction are powerful and not unworthy incentives.

56. *Should money be offered as Prizes?*

No; for it might encourage cupidity.

57. *What may be considered a fair view of the whole system of Rewards, Medals and Merit-Marks?*

They are not the highest incentives, but are far better than fear.

58. *When may Emulation be encouraged, and when should it be discouraged?*

When it brings with it only an ennobling desire to excel, it may be used as an incentive; when it leads to rivalry and envy, it should not be employed.

59. *What is the lowest of all incentives in school discipline?*

Fear.

60. *What was Dr. Johnson's defense of the use of Fear?*

"Children, not being reasonable, can be governed only by fear."

61. *Is this a correct statement?*

It is entirely too broad and sweeping.

62. *What is Edward Everett's expression on this point?*

"A school can be governed only by patient, enlightened Christian love, the master principle of our natures. It softens the ferocity of the savage; it melts the felon in his cell. In the management of children, it is the great source of influence."

63. *What was Horace Mann's expression concerning Fear in the school-room?*

"No frighted water-fowl, whose plumage the bullet of the sportsman has just grazed, dives quicker beneath the surface than a child's spirit darts from your eye when you have filled it with the sentiment of fear."

64. *Name some of the principal incentives to study and good conduct, about the use of which there is much difference of opinion.*

Prizes, merit-marks, emulation, fear of punishment, shame and ridicule.

65. *Should pupils ever be made to study as a punishment?*

They should not, and study should never be looked upon as a punishment.

66. *Should pupils ever be punished for not studying?*

They should not, unless the neglect to study is accompanied with insolence, open disobedience or rebellion.

67. *How would you prevent Tardiness?*

By inculcating the sentiment that punctuality is one of the highest of school-virtues. Written excuses from parents or guardians may be required where this is practicable.

68. *How can the importance of punctuality be illustrated?*

By showing its necessity to success in life in this age of railroads and telegraphs.

69. *How should parents be notified of the absence of children?*

Either personally or by a note, with the expression of the hope that it is not from sickness.

70. *Why should the teacher notify parents of the absence of children?*

It discourages absenteeism, and shows the parent that the teacher is interested in the welfare of his children.

71. *What does a high degree of absenteeism indicate?*

Either inefficient management and instruction on the part of the teacher or a low tone in the community on the subject of education.

72. *How is the suspension or discharge of a pupil for absenteeism justified?*

On the theory that a pupil who is absent repeatedly is not only receiving no benefit from the school, but is a positive injury to other pupils, and a serious embarrassment to the teacher.

73. *What can the teacher do to encourage Promptness?*

Be on time every day; give signals for order at the exact *moment*; call every class at its proper time; never slight a ***lesson.***

74. *What may be observed concerning signal and call-bells?*

A single, sharp tap is better than a prolonged ringing. The former seems to say "Attend now", the latter, "Attend at your leisure".

75. *What is to be said of loud and repeated rapping to secure silence?*

A single, slight tap on the table will command attention and secure silence, but if repeated frequently it loses its effect; if violently made it defeats its purpose.

76. *How long should be the daily sessions of school?*

Not more than six hours.

77. *If day-laborers work eight or ten hours, why should not teachers?*

If the teachers could stand it, the children cannot.

78. *What is to be observed concerning the confinement of little children?*

Their restless dispositions renders shorter sessions or longer or more frequent intermissions necessary.

79. *What has been observed as to half-time pupils?*

That they often make as rapid progress as those who attend all day.

80. *How should a new teacher greet his pupils on first meeting them?*

Cordially; but he should not appear anxious to become familiar.

81. *Should the teacher on the first day begin with an address?*

Two or three minutes are enough for the teacher's "Inaugural"; a few words of greeting, a hope for good conduct and a successful school are all that is necessary.

82. *What is important on the first day to impress the pupils with the idea that the teacher is Master of his business?*

He should go to the school-house with a distinct plan of work for the day marked out, and of the order in which the several steps are to be taken.

83. *Should the daily program be made out the first day?*

It should, and be placed on the blackboard. Changes in the program should be made as they may be found necessary.

84. *When should the most exhaustive* lessons be heard?

Early in the day or directly after recreation.

85. *What should the Register contain?*

An exact statement of the enrollment, the number of days' and half-days' attendance of each pupil, the number of days' and half-days' absence, and such other matters as the school officers require the teacher to report.

86. *On what rule or principle did Joseph Lancaster explain the wonderful discipline maintained in his monotorial schools?*

He said, "Let every child have, at all times, something to do, and a motive for doing it."

87. *What objection may be urged against the Self-reporting System?*

That it holds out such strong inducements to untruthfulness that many are unable to resist them.

88. *Should pupils be encouraged to report the misdemeanors of others?*

No.

89. *What are the principal causes of disorder in school?*

Idleness; want of interest in the school exercises; lack of respect for the teacher.

90. *Define Ethics and School-Ethics.*

Ethics is the science of human rights and duties; school-ethics relates to the rights and duties of persons connected with the school.

91. *Name the persons connected with the school whose rights and duties should be regarded.*

(1) The Teacher, (2) the School Officers, (3) the Patrons and Tax-Payers, (4) the Pupils.

92. *Is there any objection to Tip-toeing?*

It has been objected to, but certainly the ability to enter a public assembly without touching the heel to the floor should be acquired by all.

93. *How do you explain the fact that the higher and more uniform the standard of school-order, the easier it is to sustain it?*

On the principle that order begets order, and disorder begets disorder.

94. *Should the Teacher or Pupils be chiefly blamed for an untidy school-room?*

The Teacher.

95. ***What is meant by a natural punishment?***

One which is the necessary, fitting and appropriate resultant of the offense.

96. ***Give some illustrations of natural punishments.***

The pupil who makes a litter on the floor may be required to sweep it up. A pupil who abuses a privilege may be deprived of the privilege for a limited time.

97. ***What may be said to be a natural punishment for Tardiness?***

Remaining after school hours.

98. ***What is the best plan of calling out classes?***

By signals, as by a call-bell; not by naming the class.

99. ***Is it ever proper to resort to Corporal Punishment to secure the preparation of lessons?***

Probably not.

100. ***How do you explain the fact that some teachers govern easily without Corporal Punishment, while others can scarcely sustain their authority by frequent resorts to such punishments?***

The whole explanation is to be found in the difference in tact and governing power of the teacher.

101. ***Why should punishment never be inflicted without explanation?***

A boy has the right to know why he receives punishment before it is inflicted. If the teacher does not take the trouble to give him this explanation in a perfectly candid manner, he gives the pupil just cause for regarding him as a petty tyrant, who punishes merely for the personal gratification it affords him.

School Economy.

1. *What is meant by School Economy?*

It is a general term applied to the collective body of principles and rules by which the keeping of schools is regulated.

2. *Name some topics it embraces.*

The construction of school-houses, the selection of school-sites, school-furniture, apparatus, modes of organization and administration.

3. *What are some of the evils common to our Country Schools?*

Too many pupils, poor classification, a lack of information on the part of directors and parents relative to the aim and intent of our free school system, low wages, too many young and inefficient teachers, and a want of co-operation between parents and teachers.

4. *How large should the school-lot be?*

An acre is not too large for the smallest district school; large graded schools need much more.

5. *What advantages result from large school-grounds in the country?*

They afford room for play and exercise, and children are not forced into the public highways, to the annoyance of passers-by.

6. *Name some of the requisites of good school-grounds.*

(1) Thorough drainage, (2) trees for shade and ornament, (3) a good sod, (4) a good supply of water, (5) house for fuel, and separate closets for the sexes.

7. *What may be said to be the first essential of a school-house site in a hygienic point of view?*

Dryness and thorough drainage; no school-house should stand on undrained, marshy ground, or in close proximity to stagnant ponds.

8. *What purposes may trees in the school-yard serve?*

For health, comfort and refined taste, and to furnish subjects of study.

9. *How should the grounds be grassed?*

With the thickest, closest and strongest turf possible.

10. *What are some of the effects of impure air in the school-room?*

Ill-natured fretfulness, incapacity for sustained mental effort, laxity of tissues and pulmonary disease.

11. *What are the two objects of ventilation?*

(1) To maintain a steady and ample supply of fresh air; (2) to withdraw the foul air from all parts of the room.

12. *How does fresh air enter a building apart from openings, crevices, etc.?*

A considerable amount of air passes through the walls, especially through ordinary frame or brick walls with common plaster interiors.

13. *What is the result of this fact in ventilation?*

The air in the room will sympathize with the direction of the wind, no matter how tightly the windows and doors may be closed.

14. *What is the effect of a strong wind on a freely exposed building?*

An inward movement of air through the walls of the windward side.

15. *What is the cause of the streaked appearance of the ceilings of old rooms?*

The heated air passes through the ceiling, and, passing more freely through the plastering between the laths, leaves streaks of dust between them.

16. *How does a pupil vitiate the air of a school-room?*

By breathing, by perspiration, and by exhalation.

17. *How much air will one pupil vitiate?*

Each pupil will render from eight to ten cubic feet of air unfit for re-breathing every minute.

18. *How many cubic feet of space should be allowed each pupil?*

Not less than one hundred and twenty.

19. *What effect on air does its use for life purposes have in a closed room?*

Its oxygen is diminished; its carbonic acid, aqueous vapor and organic exhalations are increased.

20. *What are usually the chief poisonous elements in air vitiated by breathing?*

Carbonic acid and organic exhalations.

21. *What are the relative weights of carbonic acid gas, cold air, and warm air?*

Carbonic acid gas is heavier than air; cold air is heavier than warm.

22. *What is the great problem of ventilating a room heated by a stove in winter?*

To maintain a constant change of air without perceptible drafts.

23. *How can a draft of cold air be avoided?*

By admitting fresh air through several small apertures.

24. *How can the windows be arranged to admit fresh air without drafts on the pupils?*

By closely fitting a board about six inches wide underneath the bottom sash, so that the sash may be raised; on raising the sash the cold air will pass in between the upper and lower sashes, and injurious drafts be avoided.

25. *What are Tobin's tubes?*

Ventilating tubes used in England, set upright against the wall, admitting outside air at their lower ends, and emptying it just above the heads of occupants.

26. *What is meant by unilateral lighting of a room?*

Admitting light only from one side.

27. *What is the object of unilateral lighting?*

To prevent cross-lights.

28. *Where is unilateral lighting of school-rooms required by law?*

In many parts of Europe, especially Germany.

29. *Why is it most convenient to have light come from the left side?*

To prevent the shadow of the hand interfering with writing and drawing.

30. *What difficulty is there in unilateral lighting?*

Unless the windows can be made large and high it is difficult to admit sufficient light for the whole room.

31. *What is Myopia?*

Near-sightedness, and results from a lengthening of the eyeball from front to rear.

32. *What are some of the causes of Myopia in schools?*

Much confinement indoors, straining the eye in consequence of defective light, or small or defective type, long, uninterrupted use of books, and ill-health from impure air, innutritious food or other causes.

33. *What is the effect of light from the front of the pupil?*

It contracts the pupil, and thus obscures vision, and is uncomfortable to the eye.

34. *What can you say with reference to the hearing of pupils?*

The teacher should never forget that acuteness of hearing varies greatly both from permanent and temporary causes, and that imperfect hearing is a great hindrance to intellectual progress, and especially to a correct and elegant enunciation.

35. *What should be the temperature of a school-room?*

At from 65 to 70 degrees, and fluctuations should be avoided as much as possible.

36. *How high should the desk be above the seat?*

It should be high enough to enable the pupil to sit nearly but not quite erect when writing, but not so as to raise one shoulder above the other.

37. *What bad effects result from ill-arranged desks?*

Curvature of the spine and stooping of the shoulders.

38. *How should pupils sit while studying?*

Nearly erect, with the arm supported so as to be at right angles to the line of vision.

39. *Should pupils be required to sit on benches without backs?*

No; and recitation seats should have backs.

40. *How high should the seat be above the floor?*

So that the sole of the foot may rest easily on the floor.

41. *If seats are too high what is the effect?*

The muscles and nerves of the leg and thigh are compressed.

42. *If seats are too low what is the effect?*

The thighs are compressed against the stomach.

43. *Mention some highly useful articles of furniture not always found in school-rooms.*

A clock, a call-bell, a thermometer, a numerical frame, a terrestrial globe.

44 *What good effects may result from good taste displayed in school-furniture?*

The fostering of good taste in the pupils; the young are particularly susceptible of surrounding influences.

45. *How may vandalism regarding school-furniture be discouraged, and a respect for public property be encouraged?*

"Rough, neglected, untidy conditions in and about school premises lead to vandalism and to habits of disrespect for, and carelessness regarding public property, and these to habits of disregard for public interests generally. Opposite conditions tend to opposite results. It was formerly considered a mark of exceptional power in a teacher if a school-house had been kept even measurably free from the intrusions of jack-knife and pencil. It is now coming to be the exception if the well-finished furniture of school buildings is not thoroughly respected."—*D. F. De Wolf.*

46. *What three different terms are applied in the United States to schools for free elementary education?*

Public Schools, Free Schools, and Common Schools.

47. *How do modern Public Schools differ from ancient Free Schools?*

The earliest Free Schools were for the education of poor children; the modern Public Schools are not eleemosynary institutions, but Seminaries for the poor and rich in common.

48. *Where has the principle of providing gratuitous instruction for all classes been carried out to its fullest extent?*

In the New England and northern States of the United States.

49. *What is the great distinction between the English and American system of public provision for education?*

In the United States the Public Schools are generally wholly free; in England, grants are made not to make full provision for the support of schools, but in aid of local exertion.

50. *What is the fundamental principle underlying free public education?*

That the property of the State should educate the children of the State.

51. *How can the taxation of one man for the education of the children of another be justified?*

On the ground that the establishment of Free Schools is an act both of justice and expediency, and that where free education prevails there is more public and private virtue and more social order and public stability.

52. *Can patriotism be properly taught in our Public Schools?*

"One-half of the time which is now almost wholly wasted in district schools on English Grammar, attempted at too early an age, would be sufficient to teach our children to love the Republic, and to become its loyal and life-long supporters."—*Gen. J. A. Garfield.*

53. *What is meant by school age?*

The age fixed by law at which children may attend the Public Schools gratuitously.

54. *What is the school age in the United States?*

It varies in different States; it begins at six and ends at twenty-one in many States.

55. *What is the object of the law in providing for Teachers' Certificates?*

To prevent the Public School-Fund from being paid to incompetent teachers, and to guard the Public Schools against such teachers.

56. *Why are not teachers of Private Schools required to obtain certificates?*

Because they are not paid out of public funds.

57. *What is to be said of teachers engaging schools before they have certificates?*

It is a bad practice, and in some States illegal.

58. *What are the usual requisites for a Teacher's Certificate?*

(1) A good moral character, (2) qualification to teach certain elementary branches, (3) an adequate knowledge of the theory and practice of teaching.

59. *Should a teacher insist upon a written contract with the directors?*

If this has not been the custom in the district it might seem in bad taste.

60. *State some of the causes for which directors may dismiss a teacher.*

Immoral conduct, inability either to govern or teach, willful violation of a legal order of the directors.

61. *Of what offense is a teacher guilty when he inflicts cruel or immoderate Corporal Punishment?*

Assault and battery.

62. *In States where Corporal Punishment is not forbidden by law when is a teacher guilty of "assault and battery"?*

"A schoolmaster is liable criminally if, in inflicting punishment upon his pupil, he goes beyond the limits of reasonable castigation, and, either in mode or degree of correction, is guilty of any unreasonable or disproportionate violence or force."—*Massachusetts Decision.*

63. *What is to be said of punishment for misconduct out of school and outside the school-yard?*

It is of doubtful legality, and almost always impolitic.

64. *Have teachers the right to detain pupils after school hours?*

They have a right to detain pupils after school hours for a reasonable time.

65. *What is to be said of the reading of the Bible in the Public Schools?*

It has been, and still is, the subject of animated discussion and contention.

66. *Where and when was this question most fully argued?*

In the courts of Ohio, in 1870, in a case which went to the Supreme Court from Cincinnati.

67. *Who argued in this case in favor of the Bible in Public Schools?*

George R. Sage, William M. Ramsey and Rufus B. King.

68. *Who argued against the reading of the Bible in Public Schools?*

Stanley Matthews, George Hoadly and J. B. Stallo.

69. *What was the Decision of the Supreme Court?*

The court unanimously sustained the Cincinnati Board of Education in forbidding the reading of the Bible in the Public Schools, and the rule of the Board has ever since been enforced.

70. *What notable Amendment to the U. S. Constitution has been proposed concerning religious instruction in the Public Schools?*

In 1875 President Grant recommended an Amendment to *the U. S.* Constitution forbidding the teaching, in Free *Public* Schools, of religious, atheistic or Pagan tenets.

71. *What is the celebrated clause in the Ordinance of 1787 concerning Schools?*

"Religion, morality, and knowledge being necessary to good government and the happiness of mankind, schools and the means of education shall forever be encouraged."

72. *What distinction does our Government make between religion and education, so far as the attitude of the Government toward them is concerned?*

Under our government education is to be fostered and encouraged by law; religion is left to voluntary support, the Church and State being kept forever separate.

73. *What does our Government do for Schools and what for Churches?*

The government supports schools by taxation; it only protects churches.

74. *Has the general government of the United States any power to establish and enforce a Public-School system?*

No.

75. *Give the reason.*

Because that power has never been delegated to the general government.

76. *Where does the power exist in this country to establish Free Public Schools?*

In the State governments.

77. *When was the National Bureau of Education organized and by what authority?*

March 2, 1867, by act of Congress.

78. *What is its chief officer called?*

The Commissioner of Education.

79. *Who have been U. S. Commissioners of Education?*

Henry Barnard, LL. D., was the first; he was succeeded in 1870 by John Eaton, who resigned in 1886.

80. *What is the purpose of the National Bureau of Education?*

To collect educational statistics and facts, and to diffuse such information as shall promote the cause of education.

81. *What legal power has the Bureau?*

It has no governing or directing power over teachers or State officers; it is simply an office of information.

82. *How has Congress aided the Public Schools?*
Chiefly by land-grants.

83. *When did Congress make the first grants of land for schools?*
By the Ordinance of 1787, which granted Section 16 in each Township of six miles square.

84. *What States have had the benefit of School Sections?*
All the States admitted into the Union since the commencement of the present century.

85. *What States have had the benefit of two sections in each Township?*
All States admitted since 1848 have two School Sections, viz.: the 16th and 36th Sections.

86. *What is the officer called who is charged with the supervision of the educational interests in each State?*
State Commissioner of Schools, or State Superintendent of Instruction.

87. *What is meant by the School Fund?*
Property or money set apart for the support of schools, and in this country is derived chiefly from State and National appropriations.

88. *How can you find the average per cent. of attendance?*
Multiply the average daily attendance by 100; divide the product by the average monthly enrollment; the quotient to the nearest integer will be the required result.

89. *What is the duty of teachers with respect to School Property?*
After the key of the school-house is given to the teacher, he has charge of the public property of the district, and he should exercise as much care over it and concern for its safety as he would for his own property.

90. *How should a teacher correct the improprieties of speech or manners of a pupil acquired at home?*
They shall be pointed out and kindly corrected in such a way as will not wound the feelings of the pupil or subject him to ridicule.

91. *In what may a teacher be said not to be under the control of the School Board?*
In his methods of instruction and class management. In these he has his professional reputation to sustain, and

may be presumed to know more than the Board. Although the Board have no right to interfere in these matters, it is often better for the teacher to respect their wishes.

92. *What care over the health of pupils should the Teacher exercise?*

It is his duty to see that a proper temperature is maintained in the school-room, that it is supplied with an abundance of pure air and light, that pupils maintain proper positions, that in cold weather no pupil with damp clothes remains away from the fire, and that the seats and desks are suited to the ages of the pupils.

93. *What is a convenient scale of class grading?*

From 0 to 3; 3, indicating satisfactory; 2, a little defective; 1, unsatisfactory; and 0, entirely faulty. Some teachers, however, prefer a scale of 5 or 10.

94. *Why should a teacher form a provisional program before entering the school the first morning?*

In order that no time be spent in hesitating what to do; the teacher should act with decision from the first, or an important point in the future discipline of the school may be lost.

95. *What may be said to be the direct object of common school teaching?*

To give our youth the elements of an English education, such as will fit them for the ordinary duties of life.

96. *What relation does the School hold to the State?*

The school is the agent of the State, appointed for the purpose of driving out and preventing ignorance, raising the standard of moral and literary culture, and increasing the general prosperity.

97. *What is the purpose of an examination?*

To inquire into the fitness of a pupil to be advanced into a higher grade, and to determine if he has that maturity of mental powers which will enable him to pursue successfully the studies of the advanced grade.

98. *Name some of the advantages of Teachers' Meetings.*

Teachers' meetings are the only known means of giving *harmony* and proper efficiency to a system of instruction. *That* unity of purpose and of method which is indispensable to success cannot be communicated in any other manner; nor is there any other way of giving due prominence to that *esprit du corps* which should animate a body of teachers.

99. *What is to be said of the "no recess" plan?*

It is not to be thought of in Country Schools. It is said to have worked well in some large cities.

100. *What distinction may be made between a Superintendent and a Principal of a graded school?*

The time of a Superintendent is exclusively or very largely employed in the general oversight of teachers and schools; he is rather an officer of the Board than a member of the corps of teachers. The principal teacher in a graded school, on the other hand, is almost exclusively engaged in teaching, and his legitimate title is Principal.

101. *What are the advantages of a Program?*

It gives system and order to the work of the school, and enables pupils to prepare their lessons at the proper time. Pupils will then have no excuse for a lack of preparation for the recitation.

102. *What are the principal features of a good School Program?*

The time should be so divided as to do justice to all; should denote the times of day at which different branches may best be studied; different grades should alternate in recitation.

103. *State one of the greatest difficulties a teacher in an ungraded school has to contend against.*

The methods of instruction for children under and over seven years of age should be very different, and cannot be as efficiently carried on in the same as in separate rooms.

104. *State some principles which should be observed in the distribution of time and subjects in the daily program.*

Reading, Writing, and Arithmetic stand first in importance; Reading requires most time in the lower sections, Arithmetic in the highest; ten minutes is long enough for lessons of young children, twenty minutes for the older; exercises requiring close thought should be alternated with those requiring manual dexterity or easy exercise of mind.

History of Education.

1. *What does the History of Education include?*

The history of the institutions, principles, and methods by means of which youth have been educated from the earliest times to the present day.

2. *What great change in education has the invention of the printing press produced?*

It has made dependence on the memory less necessary.

3. *Why was it necessary to rely more upon the memory before the invention of printing?*

Because books were rare, costly, and not so conveniently arranged for ready reference as at present.

4. *In what did instruction in ancient times largely consist?*

In memorizing the maxims and wisdom of sages and philosophers.

5. *What picture has been given us of the schools of ancient India?*

The boys sat upon the sand in the open air, and wrote moral sentences from ancient sages, and then committed them to memory.

6. *In whose hands chiefly was education in ancient times?*

In priests' hands.

7. *Why were Priests formerly the chief educators?*

Because they were almost the only learned men.

8. *What were the liberal arts of the Middle Ages?*

There were "seven liberal arts" which constituted an essential part of a thorough education—Grammar, Logic, Rhetoric, Music, Arithmetic, Geometry, and Astronomy.

9. *What was the Trivium?*

The three studies, Grammar, Logic, and Rhetoric, (the triple way to eloquence).

10. *What was the Quadrivium?*

The four studies, Music, Arithmetic, Geometry, and Astronomy, (the quadruple way).

11. *Who was Ascham?*

Roger Ascham (Askam) was a celebrated English scholar and teacher, and Queen Elizabeth's teacher.

12. *What was Ascham's most noted work?*

"The Scholemaster, or a Plain and Perfite Way of Teaching Children to understand, read and write the Latin Tonge"; published after his death, in 1751.

13. *Who was Montaigne?*

A French essayist of the 16th century. One of his celebrated essays is entitled "Of the Education of Children."

14. *Who was Ratich?*

Wolfgang Ratich was a distinguished German educator, born 1571, and died 1635. He is known as one of the reformers of education.

15. *What work on education did John Milton write?*

"Tractate on Education", published in 1644.

16. *Who was Comenius?*

John Amos Comenius was a Moravian teacher, and one of the earliest of writers on the Philosophy of Education.

17. *What work on education did John Locke write?*

"Thoughts Concerning Education", published in 1693.

18. *Who was Rousseau?*

Jean Jacques Rousseau was a celebrated French author and philosopher of the 18th century.

19. *What work on education did Rousseau write?*

"Emile" (pronounced Emeel), published in 1762.

20. *What rank does Emile hold among works on education?*

It is regarded by many as the most influential book on education ever written, although many of the views of the author are wholly impracticable.

21. *What is the significance of the title of Rousseau's great work on education?*

Emile is the name of a supposed boy, a full account of whose ideal education is given.

22. *Who was Basedow?*

A German educator and founder of the Philanthropin. His *immediate* followers were called Philanthropinists.

23. *What was the Philanthropin?*

A celebrated educational institution founded at Dessau in 1774 as a model school in which Basedow's principles were carried out.

24. *Who was the most distinguished of Educationists in modern times?*

Pestalozzi.

25. *Who was Pestalozzi?*

Johann Heinrich Pestalozzi was a Swiss educator; born in 1746, and died 1827.

26. *What was Pestalozzi's definition of education?*

"Education is the generation of power."

27. *What was the great fundamental principle of Pestalozzi's system?*

The natural, progressive, and harmonious development of all the powers and faculties of the human being.

28. *Name some of Pestalozzi's Books.*

"Evening Hours of a Hermit," (1780), "Lienhard and Gertrude, a Book for the People," (1781), "Investigations on the Course of Nature in the Development of Man," (1798), "How Gertrude Teaches Her Children," and "Book for Mothers."

29. *Where was Pestalozzi's most celebrated school?*

At Yverdon, in Switzerland.

30. *For what purpose did Pestalozzi use object lessons?*

For the development of the observing and reasoning powers, not for the communication of facts about objects.

31. *How did he begin instruction?*

With the senses, and proceeded step by step, never telling the child what he could discover for himself.

32. *What were his principles concerning activity?*

"Activity is the law of childhood; accustom the child to do; educate the hand."

33. *What is the title of Herbert Spencer's principal work on education?*

"Education: Intellectual, Moral, and Physical"; published in 1860.

34. *Name some of the distinctive features of Herbert Spencer's theory of education.*

The concrete should precede the abstract. Pleasure or interest is the test of the efficacy of instruction. The teaching of science should be the main business of education.

35. *Who was Froebel?*

Frederich Froebel was a celebrated German educator, and the inventor of the Kindergarten; born 1782, died 1852.

36. *What influence did Pestalozzi have on Froebel?*

Froebel was an enthusiastic disciple and admirer of Pestalozzi, and was associated with him in the school at Yverdun.

37. *What was the fundamental principle of Froebel?*

That the self-activity of the child should be cultivated by constantly connecting *doing* with *learning*.

38. *What is the meaning of Kindergarten?*

A garden for children.

39. *Why did Froebel call his infant school a Kindergarten?*

Partly because the school was to be located in a hall in a garden, and partly because the children were to be tenderly nurtured, like plants.

40. *Why were Grammar Schools so called?*

Not because they gave instruction in English Grammar, but because teaching Latin, or Latin and Greek, was their special aim.

41. *What are Industrial Schools?*

Schools for instruction in certain industrial or business pursuits, and in ordinary branches of learning.

42. *What are Manual-Labor Schools?*

Schools in which pupils labor with their hands a portion of the time, and support themselves in whole or part.

43. *What success has attended the establishment of Manual-Labor Schools?*

They have generally proved unsuccessful.

44. *What are Polytechnic Schools?*

Schools in which the various Sciences and their practical applications are taught.

45. *What are Real Schools?*

A kind of High Schools in Germany which are practical or utilitarian in their aim.

46. *What was the Monitorial System?*

A system of mutual instruction conducted on the principle of selecting pupils, called monitors, to instruct other pupils.

47. *Why was the Monitorial System sometimes called the Madras System?*

Because it was introduced into England by Andrew Bell from Madras, India.

48. *Who introduced the Monitorial System in the United States?*

Joseph Lancaster, an English educator, about 1818; it is, therefore, sometimes called the Lancasterian System.

49. *What are the various names given to Schools for the special training of teachers?*

Normal Schools, Teachers' Seminaries, and Training Schools.

50. *Where are they called Normal Schools?*

In the United States, France, Great Britain, Italy, Spain, and the French Cantons of Switzerland.

51. *Where are they called Teachers' Seminaries?*

In Germany, Russia, Finland, Norway, Sweden, Denmark, and the German Cantons of Switzerland.

52. *Where are they called Training Schools?*

In Austria and the Netherlands.

53. *What country first adopted and enforced the special training of Teachers?*

Prussia.

54. *Where and when was the first public Normal School in the United States established?*

At Lexington, Mass., July 3, 1839; it was afterwards removed to Framingham, Mass.

55. *Who was the first teacher in this Normal School?*

Cyrus Peirce, who commenced with three pupils.

56. *What is the difference between a Normal School and a Teachers' Institute?*

A Normal School is a permanent school for the training of teachers; a Teachers' Institute is an assemblage of teachers called temporarily together for professional instruction.

57. *How are the expenses of Teachers' Institutes defrayed?*

In some cases by State Funds; in others by County Funds; in others by contributions from the teachers; in others by a portion or all of the fees paid at examinations for Teachers' Certificates.

58. *How did Teachers' Institutes originate?*

In private associated undertakings of teachers and friends of education; but now they are encouraged in many States by law.

59. *When was the term Teachers' Institute first applied?*

"A Teachers' Institute (then first so named) was held in 1843 by J. S. Denman, School Superintendent of Tompkins County, N. Y. This lasted two weeks, and was a revelation of the new agent in school improvement."—*James H. Smart.*

60. *When were the first County Teachers' Institutes held west of the Allegheny Mountains?*

County Teachers' Institutes began to be held in Ohio and Michigan about 1845.

61. *What is the difference between a Teachers' Institute and a Teachers' Association?*

"Teachers' Institutes are Teachers' Associations with protracted sessions."—*Ira Mayhew.*

62. *What should be the great object of Teachers' Institutes?*

To impart a knowledge of the principles and methods of teaching and school management.

63. *Who was Horace Mann?*

One of the most celebrated of American educationists, born in Massachusetts in 1796, died in Ohio 1859.

64. *What educational positions did Horace Mann fill?*

Tutor in Brown University, Secretary of the Massachusetts State Board of Education, and President of Antioch College.

65. *What was the great work of Horace Mann in Education?*

The reformation and improvement of the Common Schools of Massachusetts and the establishment of Normal Schools.

66. *What were his principal writings on Education?*

His twelve annual reports as Secretary of the Massachusetts Board of Education, and his Lectures on Education.

67. *What high claim did he make as to the effect of the proper professional training of Teachers in increasing their efficiency?*

That pupils might learn ten times as much as they did, if the Teachers had the requisite knowledge, skill and training.

68. *Name the principal educational reformers treated of by R. H. Quick in his work on "Educational Reformers".*

Comenius, Locke, Rousseau, Basedow, Pestalozzi, Jacotet, and Herbert Spencer.

69. *What were the chief demands of the Educational Reformers?*

That the study of things should precede or be united with the study of words; that knowledge should be communicated, whenever possible, by appeals to the senses; that a new method of teaching should be adopted, framed according to nature.

70. *Who was Joseph Payne?*

A noted English educator of this century, and the first Professor of Education in the College of Preceptors at London, England.

71. *What is the title of Joseph Payne's principal work on Education?*

Lectures on Education.

72. *What are some of the fundamental principles upon which all modern Educators agree?*

All true education is a growth. The educator should not so much instill as develop and call out. Learning should be pleasurable.

73. *What were the principal branches taught in the Common Schools of America in the last century?*

Reading, Spelling, Writing, and Arithmetic.

74. *When were slates introduced into the Schools?*

"Before the Revolution, and for some time after, no slates were used in the Common Schools; all writing and the operations in Arithmetic were on paper. The teacher wrote the copies and gave the sums in Arithmetic, few or none of the pupils having any books as a guide."—Noah Webster.

75. *When was English Grammar introduced into the Common Schools?*

Not till after the publication of Lindley Murray's Grammar, in 1795. From an occasional study it gradually became a regular one.

76. *When was Geography introduced into the Common Schools?*

Jedediah Morse published, in 1784, the first text-book on Geography in this country, but nearly forty years elapsed before it became a common study in school.

77. *What great defect was there in the earliest efforts to teach Geography?*

The eye was not made the chief medium of instruction; the text-book contained few or no maps, and maps were not required to be studied.

78. *What was the chief aim of the Schools instituted by Luther, and of the Parish School of England?*

To enable the people to read the Bible and the Psalm book.

79. *What is the order in which the common school studies have been introduced?*

(1) Reading and Spelling, (2) Writing, (3) Arithmetic, (4) English Grammar, (5) Geography without maps, (6) Geography with maps, (7) U. S. History, (8) Physiology.

80. *What is meant by "real" instruction in the German Schools?*

Instruction in the knowledge of nature and the external world, including the elements of the sciences and arts of life, Geography, and History.

81. *What were the first books for reading used in the schools of this country?*

The Bible or New Testament, and the Psalter.

82. *What were the first books published in this country especially designed for learners in Reading?*

Noah Webster's Spelling Book, which contained some reading lessons, published in 1783, and the same author's "Third Part", consisting of reading selections, published in 1784.

83. *Why was Webster's Reader called his "Third Part"?*

Noah Webster published a Grammatical Institute of the English Language in three parts, the first being a Spelling Book, the second a Grammar, and the third a Reader.

84. *What fact can be stated showing the great popularity of Webster's Spelling Book?*

The author supported his family from the sale of the book while preparing his Dictionary, although he received less than one cent on each copy.

85. *What was the "Horn-Book"?*

A single page pasted on a board and covered with a thin plate of transparent horn, used to teach the alphabet. Besides the alphabet in small letters and capitals, it sometimes contained the numerals and the Lord's Prayer.

86. *When and by whom was the Decimal Point introduced?*

In 1602, by Lord John Napier, an English mathematician.

87. *Who was prominent in introducing the study of Physical Geography in the United States?*

Prof. Arnold Guyot.

88. *Who was Guyot?*

A Scientist, distinguished particularly in the department of Physical Geography; born in Switzerland, afterwards Professor of Physical Geography at Princeton College.

89. *Name some of Prof. Guyot's works.*

"Earth and Man", and a geographical series, with a preliminary section on "Geographical Teaching".

90. *How and when was the study of Mental Arithmetic introduced?*

By the publication of Colburn's Mental Arithmetic in 1821.

91. *Who was Colburn?*

Warren Colburn, author of the first text-book on Mental Arithmetic, was a Massachusetts mathematician and teacher, born in 1793, died in 1833.

92. *What was the popularity of Colburn's Mental Arithmetic?*

Its sale was enormous, at one time reaching 100,000 copies annually in the United States, and 50,000 in Great Britain.

93. *Name a deceased American Professor distinguished as a Teacher of Natural Science.*

Louis Agassiz.

94. *Who was Louis Agassiz?*

A native of Switzerland, who became an eminent Naturalist and Teacher in Massachusetts. He died at Cambridge, Mass., in 1873, aged 66 years.

95. *In what particular department of Natural Science was Louis Agassiz most famous?*

Ichthyology.

96. *What celebrated school was established at Penikese Island?*

The Anderson School of Natural History, under the direction of Agassiz.

97. *What important Cyclopedia of Education has been published in this country?*

"The Cyclopedia of Education", edited by Henry Kiddle and Alexander J. Schem, New York, 1877. A book of 874 pages. Price, $4.00. A valuable work.

98. *What is the most recent letter of the English Alphabet?*

W, which was added during the Middle Ages.

99. *What is the origin of the name of W?*

It was formed by doubling V, which was formerly called U, hence the name.

100. *What is the origin of the word Alphabet?*

It is derived from the first two letters of the Greek Alphabet, *alpha*, *beta*.

101. *Give a brief history of the English Alphabet.*

The English obtained their letters from the Romans; the Romans from the Greeks; the Greeks from the Phœnicians; the Phœnicians used the same Alphabet as many of the old Semitic Nations, and its real origin is unknown.

102. *When and by whom were the Numeral Figures brought into Europe?*

The Arabian Moors or Saracens introduced them into Spain in 991; for this reason they are called Arabic Figures.

103. *What is the origin of the Arabic Figures?*

They were derived from Hindoostan and were originally the initial letters of the Sanskrit words for one, two, three, etc., but have undergone considerable changes in form.

104. *What is the origin of the Cipher?*

It is the most recent of the numeral figures, and was originally a dot used as a mere arbitrary sign to mark place or local value.

Teaching Reading.

1. *Name the principal methods of teaching beginners to read.*

(1) The alphabet method, (2) the word method, (3) the phonic method, (4) a combination of these methods.

2. *What is the Alphabet Method?*

It is teaching the names of the letters first.

3. *What is the worst form of the Alphabet Method?*

That of teaching the names of all the letters before any of their combinations into words.

4. *Why is the Alphabet Method unphilosophical?*

Because the names of the letters are meaningless to the child.

5. *What is the Word Method?*

A method of teaching beginners to read by the pupil learning to recognize and pronounce words before learning the names of the letters.

6. *What is the Webb Method?*

Another name for the word method.

7. *What argument in favor of the Word Method?*

That pupils begin with the names of familiar objects.

8. *What is the Phonic Method?*

A method by which the sounds of the letters are first taught, and their common names afterward.

9. *What is the Combination Method of teaching beginners to read?*

A method which proposes to combine the advantages of all methods.

10. *What is the Leigh Method?*

One form of the phonic method.

11. *What may be said of all these methods?*

By any of them children may be taught to read; a good teacher may be successful with any of them, and a poor teacher fail with the best method.

12. *How long should the first lessons in reading be?*

Not more than ten minutes.

13. *What method is never to be followed?*

That of teaching the names of all the letters before any words are learned.

14. *How should Punctuation be taught to beginners?*

The names and uses of the marks are to be taught gradually; do not dwell simply on their names.

15. *What objections are there to pupils "printing" names on their slates?*

It is said to spoil their handwriting.

16. *What advantages result from "printing" on slates?*

It gives little children something to do, and thus keeps them quiet.

17. *What is the Script Method with beginners?*

In it the printed letters are not taught at first, but the reading of written words or characters alone is practiced.

18. *How have certain "new methods" completely reversed the old order of studies?*

The traditional order of studies, the letters, spelling, reading, writing, has been reversed; a new order is writing, reading, spelling.

19. *Give all the names that have been applied to the different methods of teaching reading to beginners.*

The A, B, C, or alphabet method; word method; object method; phonic method; phonetic method; phonotypic method; look-and-say method; word-building method; sentence method; drawing method; script method; Leigh method; Webb method.

20. *Into what three methods may all these be resolved?*

Letter, Word, and Phonic Methods.

21. *What threefold work is to be performed in learning to read?*

Work by the eye, by the mind, and by the voice.

22. *What is the work of each?*

The eye in forming pictures of the words, the mind in taking cognizance of the meaning of the words, and the voice in giving utterance.

23. *What is the mechanical part of reading?*

Learning to call the words by sight, and pronouncing them correctly.

24. *What is the logical part of reading?*

It deals with the thoughts and meanings of the reading lesson.

25. *What is the esthetic part of reading?*

It deals with the sentiments and their beautiful expression.

26. *Should the pupil be interrupted while reading to correct an error?*

No; it interferes with expression. The correction should be made at the end of the paragraph.

27. *Name some points which should receive careful attention in every reading exercise.*

(1) Pronunciation, (2) intonation, (3) expression, (4) the meaning, (5) facility.

28. *What is one of the most common faults of intonation in reading?*

A high and unnatural monotone.

29. *What is one of the principal causes of an unnatural tone in reading?*

The reading lessons are beyond the comprehension of the pupils.

30. *Name another evil resulting from reading what is not understood.*

"To allow a child to read what he cannot at least partially comprehend is to encourage him to read without thought, which is the great hinderance to all literary and scientific progress."—*Dr. Thomas Hill.*

31. *Should pupils be taught to recite the definitions of punctuation marks?*

No; it is a waste of time.

32. *What is to be said of teaching pupils to stop "long enough to count one", "two", etc.?*

It is an absurd practice.

33. *Give an example of the proper use of* commas where no *pause should be made.*

"*No, sir*", "Thank you, sir".

34. *Should young pupils be taught "to mind the pauses"?*

They should be taught to read naturally, and give the sense; in doing this they will make proper pauses.

35. *How can pupils be led to read understandingly?*

By having them to state the story in their own language, and by interesting them in the subject.

36. *What is the object of having a pupil read a sentence backward?*

To be certain that he can call the words at sight.

37. *How is the art of oral reading to be taught; by rules, by lectures, or by drills?*

By drills.

38. *What is to be said of rules for inflection, emphasis, tone, etc.?*

They are of doubtful utility.

39. *What other purpose than that of reading correctly should the reading lessons serve?*

To confirm a habit of reading good literature.

40. *How may a reading lesson serve as a valuable language lesson?*

By enlarging the pupil's vocabulary; by improving his language; by learning critically the meaning and derivation of words.

41. *How may supplementary reading exercises be usefully carried on?*

By having pupils on one day in the week bring choice extracts from books, magazines, and papers, and read them in class.

42. *What is the main object of learning to read?*

Not to be able to read aloud well, but to have mastery over the printed page, through which the thoughts there expressed may be obtained.

43. *How do most men become intelligent?*

By silent reading; reading aloud to others is exceptional.

44. *How can you cultivate a taste for home reading in your pupils?*

By directing their attention to good and entertaining books which are accessible to them, and interesting them in the subjects treated of.

45. *What is the most important part of a common school education?*

The ability to read and write, and a taste for reading good literature.

46. *How can this be illustrated?*

By the fact that men like Horace Greeley, with little school education, have, by extensive reading, become eminent and useful men.

47. *What will give the teacher assistance in teaching reading, and make the task a delightful one?*

Extensive reading on his part, and especially an acquaintance with the author of the reading lesson.

48. *What kind of reading do children most delight in?*

Narratives, adventures, travels, and biographies.

49. *Is Robinson Crusoe a good book for children?*

Yes; every child should be encouraged to read it.

50. *What kind of reading is pernicious?*

Sensational novels, and details of murders and crimes, whether in dime novels or daily newspapers.

51. *How many times a day should a class in reading recite?*

This will depend on the number of classes in the school. The First, Second, and Third Readers should have two recitations, and more if time will permit.

52. *Why should not classes in the higher readers have as frequent lessons as those in the lower?*

Because they have more studies.

53. *State the main objects of reading exercises.*

The true teacher will have no particular set or routine method. His main object should be to secure distinct articulation; cultivate natural tones and delivery; require pupils to take a proper position; cultivate their powers of perception and language, by questions on the subject matter of the lesson; teach the use of principal punctuation marks; exercise the class in spelling, pronouncing and defining words of the lesson.

Teaching Spelling.

1. *How did Horace Mann characterize the Spelling-Book?*

   "The spelling-book is a most artful and elaborate contrivance by which words are separated from their meanings so that the words can be transferred into the mind of the pupil without permitting any glimmer of their meanings to accompany them."

2. *What words should a pupil be first taught to spell?*

   Words which belong to his own vocabulary.

3. *How many words belong to the vocabulary of a little child five years old?*

   About 300.

4. *How many words in the vocabulary of the average man?*

   About 6,000.

5. *How many words in our large Unabridged Dictionaries?*

   Over 100,000.

6. *How many words are there in the common Spelling-Book?*

   From 10,000 to 15,000.

7. *What are the arguments against drilling pupils in spelling all the words in the Spelling-Book?*

   The words are then separated from their meanings; many of them are words which pupils do not use.

8. *In what three ways can we learn to spell?*

   By spelling orally; by reading; by writing.

9. *To which organ, the ear or the eye, should we most appeal in spelling?*

   To the eye.

10. *Why should we appeal to the eye in fixing spelling?*

    Because it is in writing that we most need correct spelling, and oral spelling will not save us from mistakes in writing; the eye is the stronger sense to retain impressions.

11. *Should Oral Spelling be abandoned?*
Not entirely.

12. *What objections are there to confining spelling exercises to writing altogether?*
It becomes monotonous; the opportunities for getting assistance are increased; it fails to teach correct articulation.

13. *What good results may be obtained by Oral Spelling?*
Good articulation, correct pronunciation and syllabification.

14. *What should be the chief method of spelling?*
By writing.

15. *Besides the correct combination of letters, what else should be learned in the spelling exercises?*
Capitalization, pronunciation, diacritical marks, definitions, prefixes, suffixes, use of italics, etc.

16. *When words are written in columns in spelling exercises should each begin with a capital?*
No; only those which require capitals should thus be written.

17. *Name some of the kinds of proper names which should be introduced into spelling exercises.*
The more common Christian names, and some biographical and geographical names.

18. *How can the proper use of the Apostrophe to mark the possessive be taught in the spelling-lesson?*
By giving the possessive forms of many words to write, both singular and plural, and requiring the apostrophe to be correctly used.

19. *Name four uses of the Hyphen.*
(1) To join the parts of a compound word, (2) to join the words united together as an adjective or otherwise temporarily compounded, (3) to mark the division of a word at the end of a line, (4) to syllabify words.

20. *Which of these uses should be first taught?*
The first and third.

21. *What is the natural and quickest way of learning to spell?*
By writing words until they can be written automatically.

22. *What is meant by writing words automatically?*
Writing them without stopping to think.

23. *Why should the pupil be early taught to write words in sentences?*

Because sentences are the forms of thought expression, and the stimulus of the thought enables the child to recall the word-forms in writing, just as it does in reading.

24. *What faculties of the mind are chiefly employed in spelling?*

Perception and memory.

25. *What aid to the Memory is derived in spelling from writing?*

The habitual movements of the hand aid the memory.

26. *In what way is time economized in teaching spelling by writing?*

A whole class can exercise on the same words at the same time.

27. *Should the Spelling-Book be wholly banished from our schools?*

It seems impossible to do so in the Common Schools.

28. *What is probably the best plan of teaching Spelling?*

By a judicious combination of oral spelling, writing test words, and writing sentences.

29. *Upon what words should pupils be mostly drilled?*

Upon the words they misspell.

30. *In Oral Spelling should the syllables be pronounced?*

Good teachers differ in their practice on this point.

31. *What has been urged against the pronunciation of syllables?*

That it takes up time, is tedious and monotonous.

32. *What has been argued in favor of pronouncing the syllables?*

That it is a kind of word analysis, and that the whole word is thus more easily pronounced.

33. *In what way has the pronunciation of syllables been carried to an extreme?*

In going back and pronouncing all the preceding syllables after spelling each syllable.

34. *What are Homophonous Words?*

Words having the same sound.

35. *What is a permanent Compound Word?*

One whose parts are united without a hyphen.

36. *What is a temporary Compound Word?*
One whose parts are united with a hyphen.

37. *What is Phonetic Spelling?*
The separation of a word into its elementary sounds.

38. *How many elementary sounds in the English language?*
Forty-one.

39. *What letters could be dispensed with in English?*
c, q, and x.

40. *By what letters may these sounds be represented?*
c by *k* or *s;* q by *kw;* x by *ks* or *gz.*

41. *What are the advantages of Phonetic Exercises?*
The vocal organs are trained to clearness and correctness of enunciation, and the ear is cultivated to readily distinguish between sounds.

42. *What is to be said of rules for Spelling?*
Some of them are of use, but English Spelling is so irregular that only by practice for years can any one become a good speller.

43. *What is to be said of Spelling Matches or bees?*
They have sometimes proved to be beneficial, but the time given to them could generally be better employed by a reading club, or a literary society.

44. *In what way may pupils be led to use the Dictionary in learning Orthography?*
In compositions or other written exercises examined by the teacher the misspelled words may be marked by drawing a circle around them, and the pupils may be required to find the correct spelling from the Dictionary, and to rewrite the words, the teacher examining the rewritten words.

45. *Give a method of teaching Spelling to advanced classes by "trial lessons".*
Let the teacher dictate a selected list of words to the class, and all the pupils write them on their slates. Let each pupil then make out a list of the words he has misspelled; these only need be studied for the next lesson, and the pupil should be drilled upon them until he can spell them correctly, both orally and in writing.

46. *What are the advantages of having pupils study only the words they misspell?*

The pupil's energy is thus saved, and directed to the points where it is most needed.

47. *Describe some miscellaneous exercises in spelling for teaching the orthography of common things.*

Let pupils write a list of all objects in the school-room, or of all trees near the school-house, or all the objects commonly found in a grocery, hardware, dry-goods, or other store.

48. *How may pupils learn to spell Commercial terms?*

Let the teacher, from the commercial columns or market reports of a newspaper, dictate to older classes the terms used in commercial circles and on stock exchange, and have the pupils write them, using the common abbreviations.

49. *Give a list of some of the most important abbreviations which pupils should be taught to write correctly.*

Gov., Esq., inst., A. M., P. M., doz., Hon., pro. tem., Messrs., Mr., Mrs., the abbreviations for the names of the States, etc.

50. *How may pupils be taught to use abbreviations correctly?*

They should write sentences containing at least one of the abbreviations, carefully capitalizing only such as require capital letters.

51. *Name several different methods of teaching Spelling.*

Oral spelling in classes; oral spelling of words in reading lesson; writing on blackboard; writing on slates; writing on paper with pen and with pencil; writing lists of text-books; writing sentences dictated by teacher; writing original sentences.

52. *How should the use of Diacritical Marks be learned?*

Gradually, as the marks occur in reading and spelling lessons.

53. *What rules for Spelling should be taught?*

"There are very few rules for spelling that are of any practical value. We know of none except these three: *First*—Final silent *e* is omittted on taking a suffix beginning with a vowel. *Second*—Final *y*, preceded by a consonant, is changed to *i* on taking any suffix which does not begin with *i*. *Third*—Monosyllables, and words accented on the last syllable, ending in a single consonant, preceded by a single vowel, double the final consonant on taking a suffix beginning with a vowel. The exceptions to these rules are very few; these exceptions should be carefully learned."—*Hewett's Pedagogy.*

54. *Give some of the most important directions to be observed in Spelling Exercises.*

"Pronounce each word distinctly, and but once. Require the writing to be neat and plain. Have missed words re-written at each lesson. Review misspelled words daily. Keep a list of missed words, and use them at reviews." —*Prof. J. A. Cooper.*

Teaching Arithmetic.

1. *What is the Grube Method?*

A method of instruction in Primary Arithmetic introduced into Germany by A. W. Grube many years ago, and since adopted into many schools in this country.

2. *What is the distinguishing feature of Grube's Method?*

Instead of teaching addition, subtraction, multiplication, and division in their regular order, it takes up each number, beginning with 1, and teaches the child to perform all the operations possible within the limits of that number before passing to the next number.

3. *Illustrate the Grube Method by the figure 2.*

The child is taught to perform all the operations of addition, subtraction, multiplication, and division up to the number 2, before proceeding to 3.

4. *What, according to Grube, is meant by knowing a number?*

It means not only to know the number ot units in the number, but also its relations to all the numbers contained in it.

5. *How long did Grube think should be spent on the numbers from 1 to 10?*

He says: "In the way I want it treated, one year is not too long".

6. *What criticism may be made on Grube's Method?*

"There is something to be learned from it, but it certainly does not deserve to be used as an exclusive method teaching the elements of numbers. Grube advises a to be given to exercises of which the results shall not e i 10. Bright children will break the bounds of such li d restrictions. Children can be taught in the first ye of school life to count 100, first by ones, then by tens, th y fives, then by twos, then by fours, and so on. We th it worthy of experiment to try counting by twenties, e er before or after counting by fives."—*W. D. Henkle.*

7. *How far may pupils be taught to count the first year?*

As far as 100, whether Grube's method is followed or n

8. *Should pupils be taught to read and write numbers i primary room?*

They may be taught the first year to read and write num as far as 25.

9. *Why should frequent use of objects be made in teaching numbers to young pupils?*

Children gain ideas more rapidly and more clearly by perception than by reflection.

10. *Should Mental and Written Arithmetic be taught as separate studies?*

The opinion of most educators now is that they should be taught as one study.

11. *Why should there be a unification of Mental and Written Arithmetic?*

"There is but one Science of Arithmetic, and every thing that tends to produce the impression in the pupil's mind that there are two species, the one intellectual and the other mechanical, is an obstacle to his true progress." —*Edward Olney.*

12. *With what kind of examples should the pupil begin?*

Examples containing only small numbers, and referring to sensible objects, so that the pupil can retain them in his mind, and reason upon them.

13. *How should difficult problems be introduced?*

Gradually, so that the pupil will meet with no greater difficulty than he is competent to overcome.

14. ***Give Warren Colburn's views about rules in Arithmetic.***

Instead of the pupil studying rules in the book he should make his own rules.

15. ***Which should be taught first, Long Division or Short Division?***

Many teachers think Long Division should be taught first, as it is easier.

16. ***Why is Long Division easier?***

Because every step can be put in figures, while Short Division is a contracted method, with most of the work to be done mentally.

17. ***Which should be taught first, the process of writing numbers or the rule of notation?***

The process of writing numbers.

18. ***Give the reason.***

The rule of notation is simply the plan of procedure, and should be taught in and through the process.

19. ***How should the tables of weights and measures be taught?***

There should be tin and wooden measures in the schoolroom, and the pupils should use them practically;—especially should there be a yard measure, divided into feet and inches.

20. ***What was the great defect of old text-books on Arithmetic?***

They were simply books of definitions, rules, and examples.

21. ***What great improvement in modern Text-Books?***

They attempt to present the subject in such a way that the pupil will thoroughly understand the reasons of every process.

22. ***Is there any useful distinction between Numeration and Notation?***

"We have long considered that the distinction usually made between numeration and notation is useless."—*W. D. Henkle.*

23. ***What care should be exercised in teaching the writing of numbers?***

That the figures are neatly and correctly made.

What useful exercise in teaching pupils to read and write numbers readily?

They should be drilled to tell promptly how many figures are required to express numbers up to billions.

25. *What kind of questions should be asked in this drill?*

How many figures to express tens? One million? 14,719? 50,001? etc.

26. *What distinction may be made between Examples and Problems?*

Examples are solved to explain a method; problems are questions requiring an operation for their solution.

27. *What various opinious concerning Rules?*

Some teachers hold that rules should be carefully memorized; others that they should be given in the language of the pupil, and others that they should be omitted from the text-book.

28. *What is the argument against Arithmetical Rules?*

Rules without principles are soon forgotten, while if the principles are well understood, rules are useless.

29. *If rules are memorized, what maxim should be kept in view?*

"Only that which is understood should be committed to memory."

30. *How much of Factors and Factoring should be learned?*

"The pupil should not only learn his multiplication table completely, but he should learn the prime factors of all numbers as high as 100, and he should learn the squares as far as the the square of 25 at least."—*E. C. Hewett.*

31. *What are the two leading objects to be kept in view in the study of an Arithmetical subject?*

(1) The mastery of the rationale, (2) the acquisition of facility and accuracy in the process.

32. *Should all the subjects treated in the text-book be studied with equal care and thoroughness?*

No; some are much more important than others.

33. *What should be kept in view in arranging the order of subjects in Arithmetic?*

That the more important practical subjects be reached before the majority leave the Common School.

34. *Name some of the most important topics in Arithmetic.*

The fundamental rules, Common and Decimal Fractions, Federal Money, some of the Denominate numbers, Percentage, and Proportion; to these should be added, if tim permits, Square and Cube Root, and something of Mer suration.

35. *Name some of the less important topics.*

Greatest Common Divisor, Least Common Multiple, Circulating Decimals, and Duodecimals.

36. *Why are these topics of minor importance?*

Because they are seldom or never used in practical business operations.

37. *What is fundamentally requisite in making good Arithmeticians?*

Facility, celerity, and accuracy in the four fundamental rules.

38. *How is this to be acquired?*

By patient and long-continued drill in both mental and written operations.

39. *Should pupils be early taught in the Common Schools short methods in the four fundamental rules?*

Yes.

40. *Give the reason.*

Because the rapid methods of calculating should become habitual in early life

41. *Why should pupils be taught to subtract with the Subtrahend either over or under the Minuend?*

Because in practical calculations it is often convenient to subtract with the numbers in either portion.

42. *What is to be said of the position of the Multiplier?*

Pupils should be taught to multiply with the multiplier either under, over or at one side of the multiplicand.

43. *If you have a number containing twenty figures, and desire to multiply by a number which can be separated into two factors, how can you save one row of at least twenty figures and the addition?*

By multiplying by one factor and the product by the other factor.

44. *What is to be said of the use of the methods of "Lightning Calculators" in schools?*

Many of them can be taught to good advantage in our schools, and will become habitual methods with the learners,

45. *Should a pupil ever be permitted to pass over a topic in Arithmetic without understanding it?*

The aim of the teacher should be to have every step thoroughly comprehended, but there are some topics which cannot be thoroughly understood the first time they are studied.

46. *What is the effect of the study of Algebra and Geometry on the pupil's knowledge of Arithmetic?*

If half of the last year devoted to Arithmetic were devoted to Algebra or Geometry, and Arithmetic be afterwards reviewed, the pupils would know more of Arithmetic than by the present plan.

47. *Which should be studied first, Higher Arithmetic, or Algebra?*

Algebra.

48. *Why should Algebra be studied before Higher Arithmetic?*

Because it is easier, and more useful.

49. *Should Higher Arithmetic be studied in the Common Schools?*

No; if instruction in advanced Mathematics is to be given in the Common Schools, both Algebra and Elementary Geometry should be studied before the Higher Arithmetic.

50. *Which should be taught first in Arithmetic, processes, or reasons for the processes?*

"In beginning the use of figures in computation, let the child first master the process thoroughly; the reasons may come later;—first, *how;* then, *why.*"—*E. C. Hewett.*

51. *How can the pupil be taught Accuracy in Arithmetical computations?*

"He should be taught to be satisfied with nothing short of accuracy; if he has made a mistake in his work, that work should not be erased till the mistake has been found and corrected."—*Ib.*

52. *Give some important directions for Arithmetic Recitations.*

"Have much blackboard work. Aim at accuracy first, rapidity next. Aim to secure intense mental action. Give original examples as tests. Require definite and logical explanation and analysis. Let pupils acquire ability to perform the operation before drilling on rules and explanations."—*Prof. J. A. Cooper.*

Teaching Grammar.

1. *Who was it, called the English Language "the grammarless tongue"?*

   Richard Grant White.

2. *What prediction did this author make concerning the study of Grammar?*

   "That the time is coming when there will be no more thought of teaching an English-speaking boy the Grammar of his mother tongue than of teaching him Astrology."

3. *What reasons may be given for the study of English Grammar?*

   It is an excellent mental discipline, and, rightly taught, puts the student in possession of many important facts and principles concerning the language.

4. *The opponents of the study of Grammar say that we learn to speak and write correctly only by familiarity with good language; how is this answered?*

   The ear alone is not always a guide to correct English. There are some errors that a knowledge of Grammar alone will enable us to detect.

5. *At what age should the study of Technical Grammar be commenced?*

   Generally not before the age of ten years.

6. *Which should come first, a knowledge of Grammar or of Language?*

   A knowledge of language, and no pupil should be exercised in parsing or analyzing a sentence beyond his comprehension.

7. *With what Part of Speech is it best to begin in Grammar?*

   The noun.

8. *Why is the Noun easiest of comprehension?*

   Because the names of objects and things are nouns.

9. *Give a plan for commencing the study of the Noun.*

Call upon a class for names of things; write them on the blackboard; teach that these name words are nouns; have pupils hunt for nouns in reading lesson, etc.

10. *What would be the second step in the study of the Noun?*

Arrange the nouns selected by the class into two classes, common and proper, and lead the pupils to distinguish the difference.

11. *How should the study of the Verb be commenced?*

By leading pupils to select out words which express action; next, those which express being or state; afterwards teaching them that these words are verbs.

12. *Teaching pupils first the definition of a Noun, and next to find words corresponding to the definition, violates what maxim?*

The maxim that we should proceed from the concrete to the abstract, and from the known to the unknown.

13. *How can you teach pupils clear ideas of what is a sentence?*

Lead them to see from examples that collections of words which assert something are sentences. Have them form sentences. Next lead them to distinguish between telling or declarative sentences, asking or interrogative sentences, and commanding or imperative sentences.

14. *Why are clear and correct ideas of what constitutes a sentence of essential importance in Grammatical teaching?*

Grammar is distinctively the science of the sentence.

15. *What are the two essential parts of a sentence?*

The subject and the predicate.

16. *Of what benefit are diagrams in analysis?*

They are useful in picturing to the eye the relations of the words, phrases, and clauses of the sentence.

17. *What caution should be observed in the use of diagrams?*

They should not surfeit the mind with pictures of lines and braces; they should be auxiliary to the mind's operations, and not supersede them.

18. *What is more important than Grammar in the formation of correct language?*

Correct language on the part of the teacher, and careful correction of errors and faults of expression of the pupils.

19. *Name some of the more common errors of speech among pupils.*

The use of *done* for *did*, *seen* for *saw*, and incorrect uses of the puzzling verbs *lie* and *lay*, *sit* and *set*.

20. *What is the only philosophical way to learn to speak and write correctly?*

"Let the child learn to talk by talking, to write by writing, and to compose by composing.

21. *What should constantly go with all Grammar instruction?*

Sentence-making, and correction of errors in speech and writing.

22. *What are Language Lessons?*

Lessons intended to enlarge the pupils' knowledge of language, and to teach them to speak and write correctly.

23. *What kind of language culture should a teacher aim to give his pupils outside of the study of Grammar?*

Every recitation should be made an exercise in language.

24. *How did Pestalozzi regard object lessons?*

Merely as a proper way of teaching the use of language.

25. *Why should pupils always be required to recite in good language?*

That they may form the habit of using good language.

26. *If a pupil always heard good language, and read only good language, would he always speak and write grammatically?*

His language would generally be correct, but there are many nice points of construction in which the ear and memory will not serve as a guide, and in which an acquaintance with the grammatical construction of the language is essential.

27. *How are the meanings of new words best acquired?*

In connection with words already known.

28. *Should definitions and rules in Grammar be memorized?*

If the teacher requires rules and definitions to be given they will generally be repeated in the words of the book; it is better for the pupil to give them in his own language.

29. *What reason has been given for omitting rules entirely in Grammar?*

They are so liable to be used mechanically.

30. *What is grammatical Etymology?*

Its purpose is to explain the origin of all the inflections.

31. *What is Comparative Philology?*

It is the study of a language as a member of a great family of languages.

32. *What important rule may be given concerning the proper method of presenting rules and definitions?*

Never define a term or announce a rule or principle without first preparing the mind of the pupil to grasp and comprehend it.

33. *Should the "Cautions" and "Observations" found in most Grammars be committed to memory?*

They should not, but they should be frequently referred to in the class exercises, and thoroughly understood.

34. *What exercises in Abridgment may be given?*

Pupils may be exercised in changing complex sentences to simple ones by abridging their subordinate clauses; also in writing sentences containing abridged propositions.

35. *What exercises in Ellipsis may be given?*

Let the pupils supply the ellipses in sentences from reading lessons; and elliptical sentences may be written on the blackboard and expanded.

36. *How much time should be given to Sentence-making and Composition?*

At least one-third of the time usually set apart for recitations in Grammar.

37. *In schools where the number of classes is large, how may time be gained for Composition exercises?*

The recitation in technical Grammar may sometimes be omitted, and the time devoted to instruction and practice in practical Composition.

38. *Should definitions of technical terms be given in parsing exercises?*

They should be repeated until they can be given without hesitation, when they may be dispensed with.

39. *What reason can be given for repetition of rules and definitions in parsing exercises?*

Rules and definitions are usually statements of important facts; repetition helps to fix them in the memory. Too frequent repetition, however, becomes wearisome.

40. *What is meant by Grammatical Analysis?*

The decomposition of a sentence into its logical parts.

41. *What is a pupil taught in the study of Grammatical Analysis?*

The nature of the sentence, its essential parts, and the relations of the parts to each other.

42. *What are the principal Technical Terms used in Analysis?*

Subject, Predicate, Object, Attribute, Adjunct, Adjective Element, and Adverbial Element.

43. *Define Adjunct.*

It is generally employed to designate an element subordinate either to the subject or predicate.

44. *What three kinds of Adjuncts are there?*

Modifying, Descriptive, and Appositional.

45. *What are the benefits of the study of Grammatical Analysis?*

It leads to clear thinking, accurate and critical use of language, and terse and vigorous expression.

46. *What may be said to be the most important thing to be learned from the study of English Grammar?*

The theory of the sentence, its different forms, and how to detect a faulty sentence.

47. *Which gives most assistance in Punctuation, Parsing or Analysis?*

Analysis.

48. *What are the advantages of written parsing?*

First, it enables all the class to be reciting at the same time. Second, it impresses the relations of words by seeing them written. Third, it leads to an exactness of statement that the oral method does not always attain.

49. *How should Adverbial Phrases be parsed?*

Pupils should be taught to parse them first as single adverbs, and afterwards to parse each word in the phrase.

50. *Name the chief objects and advantages to be derived from grammatical study.*

(1) A knowledge of the mechanism of language. (2) Readiness in the interpretation of literary composition. (3) Accuracy in the use of language. (4) It is the best introduction to Rhetoric.

51. *When should Technical Grammar be studied in the Common Schools?*

"The successful pursuit of this study demands a good degree of maturity of mind, and a previous training in the processes of reflection and analysis. Hence this should be one of the last studies to be taken up in the Country School."—*E. C. Hewett.*

52. *When should Technical Grammar be studied in the Graded Schools?*

"It should be deferred until the pupil is nearly ready for the High Schools,—if, indeed, it should be undertaken at all before the pupil enters the High School."—*Ib.*

53. *State some important directions for Grammar Recitation.*

"Have all definitions illustrated by original examples. Keep the blackboard in use. Dwell on new points until well understood. Practice writing sentences, abstracts, correspondence, etc. Dwell on common errors."—*Prof. J. A. Cooper.*

Teaching Geography.

1. *What two widely different methods of beginning the study of Geography?*

One begins with the earth as a sphere, the other with the school-house lot or home of the child.

2. *Which is the better method?*

Each is advocated by good teachers, and either may be successfully used.

3. *At what age should pupils begin the study of Geography?*

Map Geography generally cannot be profitably studied before the age of ten years.

4. *What kind of Geographical lessons may be given at an earlier age?*

Lessons of a simple character, pictorial and descriptive, and approximating object lessons.

5. *Why should the use of the globe be early introduced?*

Because its frequent use will prevent serious misconceptions resulting from the use of maps.

6. *What are some of the misconceptions arising from maps?*

Principally those concerning directions.

7. *Why do erroneous ideas concerning the earth, arise from the use of maps?*

Because, the earth being a sphere, no large portion of its surface can be accurately represented on a plain surface.

8. *Illustrate this by the general direction of the eastern coast of the United States.*

Pupils studying the map of North America generally get the idea that a line following this general direction would pass a little east of Iceland, when, in fact, it would strike the British Isles.

9. *How are directions through a large portion of the earth's surface best illustrated?*

By tightly stretching a thread on a terrestrial globe.

10. *Pupils sometimes think of Greenland as being south-east of the North Pole; how would you prevent this error?*

By frequently using the globe, and illustrating the fact that all countries are due south from the North Pole.

11. *What general ideas of the earth should be firmly fixed in the mind of the pupil?*

The pupil should form a mental picture of the earth as a whole, its sphericity, its dimensions, divisions into land and water, the relative positions of the continents, larger islands, oceans, seas, etc.

12. *Should the exact Latitude and Longitude of localities be committed to memory?*

No.

13. *What exception may be made to this?*

The pupil may learn the exact latitude and longitude of his own town or home.

14. *Should all parts of a large work on Geography used in school be thoroughly studied?*

No; a selection of the most important and useful parts *should* be made.

15. *How may we be guided in determining what localities should be most thoroughly studied?*

The contents of a modern daily newspaper will furnish a good guide.

16. *How can a newspaper guide us in this matter?*

It contains telegrams, letters, and news from those localities whose Geography it is most important for us to know.

17. *How has the daily newspaper been used in teaching Geography?*

The text-book is made only a book of reference, the daily newspaper being the means by which the subject is taught.

18. *What advantages are claimed for this method?*

Places and events are associated in the mind.

19. *What objections can be urged against this method?*

The study can hardly be pursued in as systematic a manner as by text-books.

20. *How is Geography now largely taught in the best schools of England?*

Without any text-book except an atlas.

21. *What does this method of teaching necessitate in the teacher?*

A thorough acquaintance with Geography, and a better training in teaching than is generally to be found in this country.

22. *How is the imagination to be cultivated in Geography?*

By assisting the pupil to form vivid mental pictures of lands and waters he has never seen.

23. *What advantages result from Map-drawing?*

It combines doing with learning; it imprints localities firmly in the mind; it educates the hand and the eye.

24. *Can Map-drawing be carried too far?*

Yes, when pupils are led to spend so much time in making beautiful maps that they neglect other important studies.

25. *How may a teacher's reading aid him in teaching Geography?*

If he sees an interesting and instructive article on any country or region, he should preserve it, and read it to the class, who should afterwards be questioned concerning it.

26. ***Where may a teacher most likely find useful information for his Geography class additional to that in the text-book?***

In Gazetteers, Encyclopedias, and books of travel.

27. *How may the investigating spirit be cultivated in this study?*

By assigning a topic such as the Pyramids, Thebes, Suez Canal, or London, on which the pupils are to obtain all the information they can, and repeat to the class.

28. ***Who are the most successful teachers of Geography?***

Generally speaking, those who mix with their teaching of maps and text-books most collateral information in the form of historical, commercial, or scientific incidents.

29. ***What teachers are able to give this kind of collateral information?***

Teachers of much general information, close observation, and wide reading, and those who have access to good books of reference, and make good use of them.

30. ***Who have advocated banishing Geographical teaching from the school?***

Dr. Arnold and J. S. Mill.

31. ***Give some reasons which have been given against Geography as a separate study.***

That it should be studied only in connection with History and Reading, and that it takes time which might be more profitably employed.

32. ***Give some reasons why Geography should not be banished from schools.***

It is the only study in our schools which gives pupils any systematic instruction concerning the earth, and its different climates, peoples, productions, etc.

33. ***What Geographical truths are most important to foster in the mind?***

The more general and comprehensive truths concerning our planet.

34. ***What can be said of the necessity of the teacher studying Physical Geography?***

It is a branch of the highest importance, and the teacher should frequently re-read, or at least re-examine, some good work or works on the subject,

35. *Should Physical Geography be taught as a separate branch in the Common Schools?*

No.

36. *Why not?*

Because it increases the expense of education in the purchase of school books, and because it increases the number of classes in school.

37. *How should Physical Geography be taught?*

In connection with common text-books on Geography.

38. *How can pupils be taught to find, on an ordinary map, the high and the low lands?*

By tracing the directions in which the streams of water flow.

39. *What must always be the prominent object in the study of Geography?*

"The thorough study of the map, on the wall and in the book, and the mastering of it, so as to engrave, so to speak, its image in the mind of the pupil, in strong and deep-cut outlines, never to be effaced, is, and must remain; the prominent object of the course."—*A. Guyot.*

40. *What kind of a map is most easily fixed in memory?*

A map with few lines and names. A map crowded with lines and names of rivers, roads, boundaries, cities, and towns may serve for reference, but it confuses the memory of the child.

41. *What fact concerning the pronunciation of Geographical names should be kept in view?*

The pronunciation of Geographical names learned at school is likely to adhere to pupils, it being difficult for them to adopt new methods of pronunciation; hence the importance of the teacher using the correct pronunciation.

42. *What good result may there be from going over Geographical names at school, even if the locality and description of places be forgotten?*

A ready and correct pronunciation may always be at command in after life.

43. *What is meant by topical review in Geography?*

A review of Geographical knowledge by topics; for instance, take salt lakes as a topic, and have all the salt lakes of the world named; ask for all the countries where the camel is found, etc.

44. *What country is of most importance to study in detail?*

Our own; the State in which we live being most important of the States.

45. *The details of what foreign region are next in importance to our own?*

Europe.

46. *What oral instruction should be given preparatory to Primary Geography?*

Conversational lessons on place, direction, points of the compass, distance of familiar towns, etc.

47. *How would you teach pupils to find the North Star?*

First show them how to find the Great Dipper and the Pointers, and the North Star by the Pointers.

48. *How can the teacher employ current events in teaching Geography?*

When any important event occurs, as a great battle, earthquake, or change in government, the teacher should tell or read an interesting account of the occurrence, and the pupils should carefully study its locality.

49. *What should precede all instruction in Latitude and Longitude?*

The pupil should have a clear idea of what a degree is, and should be taught to mark off on the circumference of a circle drawn on the blackboard any given number of degrees.

50. *What can be said of teaching Mathematical Geography?*

Many topics in Mathematical or Astronomical Geography are too difficult for young minds. It is well for the teacher always to see that the learner clearly comprehends *the facts of the phenomena* to be explained, before giving the explanation.

51. *Give some useful directions concerning recitations in Geography.*

"Have a map before the class. Have the pupils draw maps on the board. Use the globe, objects, and pictures for illustrations. Drill upon the pronunciation and spelling of the difficult names."—*Prof. J. A. Cooper.*

Teaching Penmanship.

1. *What does the word Penmanship now include?*
   All kinds of handwriting, whether done with a pen or other instrument.

2. *What two things are requisite in order to be a good penman?*
   (1) A thorough knowledge of the best forms of letters, (2) a ready command of the pen to execute them.

3. *When should pupils begin to learn to write?*
   They should begin to learn to write when they begin to learn to read. Reading and Writing should be taught together.

4. *What "Movements" may be employed in Writing?*
   "There are four 'movements'; (1) the Finger Movement, (2) the Fore-arm Movement, (3) the Combined Movement, consisting of the combined action of the fore-arm, the hand and the fingers, (4) the Whole-arm Movement."—*Spencer.*

5. *Should pupils begin to "print" on their slates or use script?*
   They should use script from the first.

6. *What is one of the first things a pupil should learn to write?*
   His own name.

7. *Give the reason.*
   Because it is the most important thing for him to learn in writing, and because of the natural interest the pupil takes in learning it.

8. *How may beginners in writing be taught?*
   The teacher may write words on the blackboard for them to copy.

9. *How may slates be prepared for writing?*
   By ruling permanent lines on one side,—two lines indicating the height of the smaller letters and one above and one below to indicate the length of loop letters.

10. *Should left-handed pupils be taught to write with the left or right hand?*

With the right hand, and then they can write with either hand.

11. *What views did Charles Reade, the novelist, advocate concerning ambidexterity?*

That all children should be taught to use both hands with equal skillfulness, in writing, drawing, sewing, and all kinds of handiwork.

12. *What was his argument against teaching children to be only right-handed?*

That it causes a one-sided development, both of the body and of the brain.

13. *What are usually the first things the pupil is taught to make with the pen?*

Straight lines, to be made with the proper slope, and with perfect parallelism.

14. *What is meant by "Principles" in Writing?*

The constituent parts of letters.

15. *How many of these principles are there?*

Eight.

16. *What is the Base Line?*

The horizontal ruled line on which the writing rests.

17. *What is the Head Line?*

The horizontal line to which the small letters extend.

18. *What is the Intermediate Line?*

The horizontal line to which the semi-extended letters extend.

19. *What should be the angle of the main slant straight lines?*

About 52 degrees with the Base Line.

20. *What should be the angle of the curves which connect straight lines in small letters?*

About 30 degrees.

21. *What letter may be taken as the unit of height?*

The letter *i*, without the dot.

22. *What is the unit of width?*

The letter *u*, taken horizontally.

23. *Into what three classes may the small letters be divided?*

Short, semi-extended, and loop.

24. *Name the short letters.*
i, u, w, n, m, v, o, a, x, e, c, r, s.

25. *Name the semi-extended letters.*
t, d, p, q.

26. *Name the loop letters.*
h, k, l, b, j, y, g, z, f, s.

27. *What is the effect of movement in Writing?*
"A free, easy movement produces a graceful line, while a stiff, cramped one produces a rough, irregular line."—*DeGraff.*

28. *What is the proper position of the body while writing?*
"The body must be in a position nearly erect, near to, but never leaning upon or touching the desk."—*Spencerian Key.*

29. *What "movements" do you recommend in Writing?*
"In regular writing we recommend only two movements, namely, the combined movement, and the whole-arm movement."—*Ib.*

30. *What should be done the first year at school in Writing?*
The pupil should begin to write script on the slate, and learn to write his name with a pencil.

31. *The second year?*
Learn to make all the small and capital letters on the slate.

32. *The third year?*
The first copy-book taken up and completed. Dictation exercises commenced for correct use of capitals, punctuation, etc.

33. *When should pupils cease to write from copies?*
As soon as they have acquired a thorough knowledge of the forms of letters, and a fair amount of skill in writing.

34. *What is to be said of the practice of teaching Writing only from copies?*
It is a waste of time with pupils who have written much. Every pupil should be taught at school to write freely and legibly without copies.

35. *What is the secret of learning to write well?*
Much practice, constant vigilance, and continual correction of faults.

36. *At what three things should we aim in teaching Penmanship?*
(1) Legibility, (2) Rapidity, (3) Elegance.

37. *Name several points to be considered in estimating the excellence of the pupils' work in Writing.*

The form of the letters, use of capitals, division of words, spacing, punctuation, neatness, cleanliness, and general appearance.

38. *What is claimed to be the effect of learning to draw, on Penmanship?*

That if one-half the time usually given to Writing be devoted to Drawing, pupils would be better writers, with the power of drawing a clear gain.

39. *How does Drawing assist in Writing?*

It trains both the hand and the eye.

40. *Give a good method of teaching Penmanship.*

A good blackboard should hang where it can be seen by the whole school, and on this the teacher should correct the faults common among children in shaping their letters, and elucidate the principles. Charts will prove a valuable aid in teaching the principles and forms of letters and figures. The same series of copy-books should be used by all the pupils; but it will be economy for each one to have some paper on which to experiment.

Teaching Composition.

1. *Why has Composition-writing been regarded as most irksome?*

Because pupils have been required to write formal compositions, often on abstract topics, without any preliminary preparation or training.

2. *Name some exercises preparatory to Composition.*

Sentence-making in various forms; writing from dictation; brief descriptions of familiar objects.

3. *How may Sentence-making be commenced?*

The pupils may write words and phrases descriptive of some object, and then combine them into one sentence.

4. *Illustrate by a sentence on the School-House.*

The teacher asks the questions: "Of what is this house made"? "How many stories high"? "What kind of a roof has it"? etc. The pupils write the answers separately, then combine them into a sentence, thus: "This house is made of brick, is one story high, has a shingle roof", etc.

5. *What topics are best for beginners in Composition?*

Those with which they are most familiar.

6. *Should the teacher select the topics?*

Generally he should; it is less interesting when pupils select them.

7. *How often should Compositions be written?*

There may be sentence-making frequently, and formal compositions once a week, or every two weeks.

8. *How should Compositions be corrected?*

They should never be severely criticized, and all the errors at first need not be pointed out.

9. *What advice should beginners receive?*

Attempt to express but one idea at a time; make short, simple, and clear sentences; do not aim at fine writing, but to express thoughts clearly; try to write just what you mean.

10. *What is the effect of Composition-writing on mental development?*

"As the child takes up successive studies, nothing will assist his mental growth so materially as the practice of putting into written words the facts learned and the thoughts evolved. In fine, there is no more important study in the Common School curriculum than that of original composition."—*Eclectic Manual.*

11. *What two kinds of Composition have been much neglected in schools?*

Letter-writing and business forms.

12. *In what points concerning the mechanical structure of a letter should instruction be given?*

The position of its different parts, the date, address, body, division into paragraphs, margins, subscription, folding, superscription, etc.

13. *Name some business forms which should be taught.*

Pupils should be taught to write promissory notes, receipts, checks, orders, drafts, bills, cash accounts, due-bills, bills of exchange, etc.

14. *What different kinds of Promissory Notes should be taught?*

Negotiable, non-negotiable, bearing interest from date, bearing interest from maturity, due-bills, notes payable at a bank, etc.

15. *What is the difference in the form of a Negotiable and a Non-Negotiable Note?*

The negotiable note contains the words "or order" or their equivalent; the non-negotiable note does not.

16. *Are the words "value received" necessary to the validity of a Promissory Note?*

They are not.

17. *What different kinds of Bills should pupils be taught to write?*

Bills for articles bought at one time, for articles bought at different times, for services, for services and material, etc.

18. *In teaching the business forms, how would you avoid overburdening and confusing the mind of the pupil?*

By teaching but one form at a time.

19. *What kinds of business correspondence may be taught in schools?*

Answers to advertisements for situations, letters of recommendation, letters acknowledging remittances, orders for goods, letters of introduction, etc.

20. *How would you teach pupils to write a business form?*

The pupils may first be shown a model form of the letter or instrument, and be permitted to copy it; afterwards they should write a similar one from dictation, and last should write one from memoranda, or one entirely original.

21. *What kind of Composition-writing did young Benjamin Franklin practice, with special benefits therefrom?*

Changing poetry into prose. This he thought an excellent substitute for the translation of a foreign language.

Teaching the Higher Branches.

HISTORY.

1. *What various opinions are there concerning the study of History in school?*

   Many hold that it should be studied in our Common Schools, others that it is a subject proper only for the higher schools, and still others that the facts of History can only be acquired by private reading.

2. *Give an argument against the study of History in schools.*

   History cannot be well studied in schools except from compendiums, and compendiums are less attractive than detailed Histories, and can be more profitably read after the larger Histories.

3. *What opinion did the Teacher-President express on this subject?*

   "I insist that it should be made an indispensable condition of graduation in every American College, that the student must understand the history of this continent since its discovery by Europeans, the origin and history of the United States, its constitution of Government, the struggles through which it has passed, and the rights and duties of citizens who are to determine its destiny and share its glory."—*J. A. Garfield.*

4. *What was Dr. Arnold's plan of a first book in History?*

   A picture-book of memorable deeds which best appeal to the child's imagination, arranged with order of time, but with no other connection; the letter press simply but fully telling the story of the action depicted. This would form the starting point, and the child would be curious to know more about the great men whose acquaintance he had made.

5. *What are the two leading objects to be kept in view in the study of U. S. History?*

   (1) To imprint on the young mind the leading facts of the History of our country, (2) to arouse a love for the study which the pupil will carry with him in after life.

6. *What bad method of teaching Chronology is to be avoided?*

That of teaching long lists of dates in chronological order, as if one event was as important as another. Dates of leading events only should be thoroughly imprinted on the mind, and other dates should be grouped about these as focal points.

7. *What is to be said of the memoriter plan in History?*

"History cannot be successfully taught by the memoriter plan. It kills the life of the subject. It disgusts the pupils, and gives them a dislike for Historical reading." —*J. B. Peaslee.*

8. *Give a method of interesting children in History.*

"What is said in the text-book upon the topic under consideration should be read by the pupils under the direction of the teacher. The teacher should see that they thoroughly understand what they read, and at each lesson, question them in brief review of the previous lesson. She should read, or cause to be read, parts of other histories or reference books (encyclopedias, gazetteers, etc.) that bear upon the subject of the lesson. She should also give out questions, the answers to which the pupils are to find for themselves, and should encourage them in relating historical anecdotes, and in giving sketches of noted events to their classmates."—*Ib.*

9. *What can you say of Biography in connection with History?*

"History should be taught principally *by biography.* Biography is the *soul* of history. The life of a great personage, as of Cromwell, Napoleon, or Washington, contains nearly everything of importance in the history of the time and country in which he lived. Nothing is more entertaining to the young than the lives of great men and women."—*Ib.*

10. *How should recitations in History be conducted?*

All verbatim repetition of sentences and paragraphs should be forbidden, and the pupils should be required to state the facts in their own language.

11. *How may History be taught in primary grades?*

The leading events in U. S. History may be taught to the pupils in a series of oral lessons, and some leading dates fixed in their minds.

12. *What study is a natural ally of History?*

Geography; events and places should be associated in the mind. The history of a campaign should always be studied with the map.

13. *How can collateral information be used in teaching History?*

The teacher may direct pupils to available sources of information outside the text-book, and a pertinent and entertaining anecdote may do much to impress indelibly in the mind an historical fact.

14. *In what way may general literature be made to subserve the study of History?*

Celebrated poems, such as "The Landing of the Pilgrims", "Paul Revere's Ride", "Sheridan's Ride", etc., and extracts from great speeches, and other portions of literature connected with historical events, should be read in connection with the study of History.

15. *How can dates be fixed in the mind?*

Prominent dates should be placed on the blackboard, and should be repeatedly considered. Repetition only can fasten dates in the memory.

16. *What is to be said of memorizing isolated dates?*

It is worse than useless; dates should only be learned in connection with the general narrative.

17. *What dates should be carefully fixed in the mind?*

Dates of certain great events marking the epochs in the History of a Country.

18. *What is to be said of mnemonic devices in History?*

Their frequent use tends to create confusion in the mind, and to displace the more rational exercise of the memory; they may, however, sometimes be employed with good results, especially to assist the memory in dates.

19. *Give an example of a mnemonic device in U. S. History.*

In the following arrangement of Revolutionary events, the first letters spell Liberty:

Lexington (battle of), 1775.
Independence (Declaration of), 1776.
Burgoyne (Surrender of), 1777.
Evacuation (of Philadelphia), 1778.
Recapture (of Stony Point), 1779.
Treason (of Arnold), 1780.
Yorktown (Siege of), 1781.

20. *What knowledge of the history of the Political Parties should the pupil obtain?*

A knowledge of the origin of the parties, the names of the successive parties, the proximate date of the origin of each, and the party victorious at every Presidential election.

21. *What knowledge of the order of the succession of Presidents should be acquired?*

It will prove a great convenience to be able to name the Presidents in their order, those who served eight years and those who died in office, and also to give the year of the commencement of each Administration.

22. *How much knowledge of the U. S. Constitution should be given in the Common Schools?*

It cannot be expected that pupils in the District Schools will become Constitutional lawyers, but it is highly desirable that they should have the general outlines of the organic law clearly impressed on their minds.

23. *In some schools pupils have been required to memorize the Constitution; is this wise?*

It is of doubtful propriety in any school; it would be better to acquire such familiarity with the document as to give facility in consulting it upon any point on which information is desired.

24. *How would you encourage the habit of consulting the Constitution?*

By asking questions which are answered in the Constitution, and requiring the pupil to discover the answers by their own investigations.

25. *Give examples of questions which may serve this purpose.*

How old must the President be? How old must a Senator be? In what cases is a two-thirds vote required in the Senate? What U. S. officers are elected directly by the people? etc.

26. *Should a separate text-book on the Constitution be used?*

It is better in the Common Schools that the Constitution be studied in connection with U. S. History.

27. *Name some topics in the U. S. Constitution which are beyond the comprehension of Common School pupils.*

The jurisdiction of the U. S. Courts as defined in the 3rd article, and the exact boundary between the powers of the State and Federal Governments.

28. *How should the history of the Constitution be studied?*

The Articles of Confederation and the Constitution should be contrasted, and the defects of the former understood; the pupils should learn the points on which the Federal Convention had most difficulty, and what were the great compromises of the Constitution. The organization of the Government under Washington should be carefully studied.

29. *Name some points in the science of government which should be studied in connection with the Constitution.*

The three-fold form of the Government, the reasons for the separation of the three departments, some similarities and differences between the U. S. Constitution and that of the pupils' own State, the nature of Civil Liberty, and how the affairs of a county, township, and town are managed, etc.

30. *What three systems of Local Government in the United States?*

(1) The Township System, prevailing generally in New England. (2) The County System, found in most of the Southern States. (3) The Compromise System, or combined Township and County Systems, found in most of the Western States.

PHYSIOLOGY.

31. *What do modern sanitary discussions show?*

The necessity of a popular knowledge of the laws of health.

32. *Should teachers be required to understand Physiology?*

Yes; every teacher should be acquainted with its general truths, whether he is required to teach it or not, both for his own profit and for the means it affords him of being useful to others.

33. *Give an argument in favor of the study of Physiology in schools.*

Every one should understand the laws of life and health. From the cradle to the grave we suffer punishment for the violation of these laws. Perhaps half the diseases and half the deaths that occur arise from their violation.

34. *Can a profound knowledge of this subject be acquired in the Common School?*

No; but an acquaintance with its leading truths can be give

35. *What primary instruction may be given in this subject?*

Simple explanations of how we live, of the use of the heart and lungs, locating and naming some of the principal bones, arteries, etc., with talks on the means of preserving the health.

36. *What are some of the most important Hygienic topics to present to young children?*

Proper Hygienic habits as to eating, drinking, sleeping, exercise, bathing, keeping the feet warm and the head cool, avoid sitting in a draft of air, tight lacing, cramping the lungs, intemperate use of alcohol, etc.

37. *Can Physiology be properly taught from books only?*

No; "there is", says Dr. Dalton, "only one means by which Physiology can be studied; that is by the observation of nature".

38. *How can the study be taught in schools by the observation of nature?*

By directing pupils to see the organs of the lower animals by visits to slaughter-houses, etc. They will thus obtain a better idea of the appearance and uses of their own organs than they could from books and pictures.

39. *What three sciences does the term Physiology, as generally used, include?*

Anatomy, the science of the structure of the body; Physiology, the science of the functions of the body; and Hygiene, the science of the laws of health.

40. *Why are these generally studied together?*

Because they are so intimately blended that the lines of distinction between them cannot be clearly drawn, and some knowledge of all of them is necessary to understand the principles which underlie the preservation of health, and the formation of correct habits.

41. *How can the difference between knowledge from nature and from books in Physiology be illustrated?*

There is a great difference between reading the description of the heart, and seeing the actual heart of an ox, handling, studying, and dissecting it. However, the butcher may see a thousand hearts without learning that it has *valves*. Study of books and observation of nature should *go together*.

42. *How much of Anatomy should be taught in the Common Schools?*

The structure and names of the principal bones, muscles, arteries, veins, etc.

43. *Of what use is the microscope in the study of Physiology?*

By means of it only, can we see the structure of the bones, the skin, the blood, the pigment cells of the eye, etc.

44. *How should recitations in Physiology be conducted?*

"On naming the subject of a paragraph the pupil should be prepared to tell all he knows about it. No failure should discourage the teacher in establishing this mode of study and recitation."—*J. Dorman Steele.*

45. *How can accuracy in the use of Physiological terms be secured?*

The pupil should have frequent exercises in writing on slate, paper, or blackboard the nomenclature of the subject, and at the close of a recitation let all criticise the spelling, use of capitals, pronunciation, and modes of expression.

46. *How can the knowledge acquired be firmly fixed in the mind?*

"The pupil should expect to be questioned each day upon any subject passed over during the term, and thus the entire knowledge gained will be within his grasp for ready use."—*Steele.*

BOOK-KEEPING.

47. *What argument has been made against the study of Book-keeping in the Public Schools?*

It has been maintained that Book-keeping can only be acquired in connection with actual practice in the counting-room.

48. *Is this argument well founded?*

No; for, while theoretic instruction can not supersede the necessity of actual practice, yet the knowledge of Book-keeping obtained at school may prove highly useful to every man and woman.

49. *How much time is necessary to be devoted to Book-keeping in order to understand it?*

One or two years in order to become a professional book-keeper, but the higher classes in our Common Schools may learn in one or two months all that is necessary to be able to keep an ordinary set of accounts accurately and clearly.

50. *What Books are used in the simplest form of Book-keeping?*

The Day-Book, recording the transactions in the order of their occurrence, and the Ledger, classifying the results.

51. *Should this study be pursued in Country Schools?*

Yes, because there is a very general lack of information on this subject among the agricultural classes, and those who are to become farmers should learn at school how to keep farm accounts, farm records, and family expense accounts.

52. *When should Book-keeping be studied in the Common School?*

After the completion of Practical Arithmetic.

HIGHER MATHEMATICS.

53. *Upon what subject is it generally believed that too much time is spent in school?*

Arithmetic; there is a general concurrence of opinion among educationists upon this point.

54. *When may the study of Algebra be commenced?*

After the completion of the common text-book on Practical Arithmetic, and before the study of Higher Arithmetic. Indeed, Algebra may be studied profitably without mastering many topics treated in most Practical Arithmetics.

55. *What is the objection to the study of Algebra in the Common Schools?*

The class in Algebra will usually be quite small, and it is taking up the time of the teacher for the benefit of the few.

56. *In what cases may a teacher properly advise the formation of a class in Algebra?*

When there are pupils who must study either Higher Arithmetic or Algebra, the latter should be chosen.

57. *Can pupils learn enough of Algebra in six months to be of any practical benefit to them?*

Yes; half a year on Algebra will often be more profitable than in the further study of Arithmetic.

58. *Can Geometry be understood without a knowledge of Algebra or a thorough acquaintance with Arithmetic?*

Yes; Geometry can be studied and understood without any acquaintance with Algebra, and a familiarity with only the simpler principles of Arithmetic.

59. *How can this be proved?*

By the fact that the Greeks developed Geometry without a knowledge of Algebra, or being what would now be called good Arithmeticians.

60. *How may Geometry be commenced?*

The leading truths of Plane-Geometry, the facts about lines, angles, and surfaces may be made familiar to the student before any attempt is made at scientific reasoning.

61. *In what Arithmetical study are Geometrical facts taught without demonstrations?*

Mensuration.

62. *Are the facts of Geometry taught successfully to young children in any modern schools?*

Yes; in many Primary Schools on the continent of Europe much importance is attached to the study of geometrical forms. This furnishes excellent means for intellectual development. It lays the foundation of instruction in drawing, and forms an admirable preparation for different trades (carpentry, masonry, locksmithing, etc.).

63. *What is the true order of mathematical studies?*

"Geometrical facts and conceptions are easier to a child than those of Arithmetic, but arithmetical reasoning is easier than geometrical. The true scientific order in a mathematical education would therefore be, to begin with the facts of Geometry, then take both the facts and reasoning of Arithmetic, and afterwards return to Geometry, not to the facts only, but to its proofs."—*Dr. Thomas Hill.*

64. *Name some facts taught by Spherical Geometry which are useful to the student of Mathematical Geography.*

Every section of a sphere made by a plane is a circle. Any two great circles will bisect each other. The shortest distance between two points on the surface of a sphere is the arc of a great circle.

65. *Should the demonstrations* in Geometry *be committed to memory?*

No; memorizing in Geometry should not be permitted.

66. *What is meant by Inventional Geometry?*

It is the exercise of the student's powers of invention by the investigation and solution of original geometrical problems, and the discovery of demonstrations of geometrical propositions.

67. *What useful apparatus may be used in teaching the facts of Spherical Geometry?*

A slated globe; it is difficult for most pupils to comprehend spherical angles, triangles, etc., when drawn on a plane surface.

NATURAL SCIENCE.

68. *What three branches of Natural Science are best suited for study in the Public Schools?*

Botany, Physics, and Physiology.

69. *What considerations recommend the choice of Botany among the sciences?*

Plants which supply the material for study are "abundant both in quantity and in variety; their characters are as a rule both striking and attractive; no apparatus is necessary beyond the occasional use of a pocket knife or a hand lens; while their classification is based chiefly, if not entirely, upon such structural characters as may be observed by the eye; the problems of Botany are not too complex; the comparisons to be made are not too difficult for the judgment of the child".—*A. H. Tuttle.*

70. *What difficulties are there in the way of the study of Zoology in schools?*

"Concerning the study of animals, it may be said that while the material is generally abundant, and the variety sufficient, it is not always pleasant to deal with; when alive it is frequently troublesome, and when dead it speedily becomes offensive; even alcoholic material is not always agreeable; the characters of animals, after we pass beyond the most trivial, are frequently internal, and make necessary careful dissection; while their classification, though it takes largely into consideration the anatomical structure of adults, daily makes use more and more of embryological data, that cannot be submitted to the observation of the child."—*Ib.*

71. ***What method of study is best in Botany?***

"The method of study should be that first devised by Henslow, and since admirably developed by Miss Youmans; the child should be supplied, either by his book or by his teacher, with terms as he needs them, and should be set to work first upon parts of plants, and then upon plants as a whole, observing closely, describing accurately, and, when he has had sufficient practice in observation and description, in comparing and classifying to the best of his ability."—*Ib.*

72. ***What is the great educational value of the study of Botany?***

Training the observing faculties, developing the generalizing powers, and discipline in that power of rightly comprehending the relations of things which underlie all accurate classification.

73. ***What has been said of the success of Prof. Henslow in teaching Botany to young children?***

Children from ten to fourteen years of age learned Botany readily and voluntarily, and became greatly interested in it. The teacher made the study practical. He made it an objective study. The children were taught to know the plants, and to pull them to pieces, and to give their proper names to those parts, to indicate the relation of those parts to one another, and to find out the relation of one plant to another by the knowledge thus obtained.

74. ***What value as a means of education did Henslow place upon Botany?***

He regarded it as the most important agent that could be employed for cultivating the faculties of observation, and for strengthening the reasoning powers.

75. ***What is the educational value of the study of Physics?***

"The end and aim of the study of physics, as far as its educational value is concerned, is discipline in the power of comprehending that relation between phenomena which is at the bottom of all that which we call *law*. It is valuable as teaching the art of investigation—of inquiring into things; and as training and developing the power of logical induction; moreover, because its conclusions, when reached, are capable of immediate proof or disproof, it tends strongly to inculcate the habit of exact thought upon given data."—*A. H. Tuttle.*

76. *What kind of experiments should be performed in the study of Physics?*

The experiments generally should be the simpler ones, such as the pupils can perform themselves in the first instance, or easily repeat after being shown by the teacher.

77. *What kind of apparatus should be employed?*

It should be home-made as far as possible; there should be no apparatus that the pupils may not handle and use themselves. Large, costly, and complicated pieces of apparatus should be avoided. A hundred-dollar air-pump has no place in the Public School.

78. *When should the study of Science begin, and where should it end?*

"What we most urgently need is an objective course of study which shall train the observing powers, *as mathematics trains the power of calculation.* From the time the child begins to count, until the man has mastered the calculus, there is provided an unbroken series of exercises of ever-increasing complexity, suited to unfold the mathematical faculty. We want a parallel course of objective exercises, not to be dispatched in a term or a year, but running through the whole period of education, which shall give the observing and inductive faculties a corresponding and systematic unfolding."—*Miss Youmans.*

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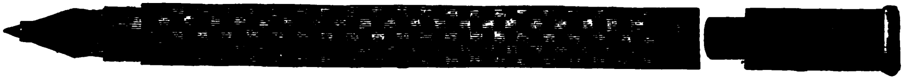

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